NXU Lite

User’s Manual

July 2012

COPYRIGHT

©2012 AVer Information Inc. All rights reserved.

No part of this document may be reproduced or transmitted in any form, or by any means without the prior written permission of AVer Information Inc. AVer Information Inc. reserves the rights to modify its models, including their characteristics, specifications, accessories and any other information stated herein without notice. The official printout of any information shall prevail should there be any discrepancy between the information contained herein and the information contained in that printout.

DISCLAIMER

No warranty or representation, either expressed or implied, is made with respect to the contents of this documentation, its quality, performance, merchantability, or fitness for a particular purpose. Information presented in this documentation has been carefully checked for reliability; however, no responsibility is assumed for inaccuracies. The information contained in this documentation is subject to change without notice.
In no event will AVer Infomration Inc. be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or inability to use this product or documentation, even if advised of the possibility of such damages.

TRADEMARKS

“AVer” is a trademark owned by AVer Information Inc. Other trademarks used herein for description purpose only belong to each of their companies.

TABLE OF CONTENTS

CHAPTER 1 INTRODUCTION....1

1.1 Minimum Computer System Requirements 1
1.2 Dual Monitors Setup.... 2
1.2.1 Graphic card with ATi chipset.... 2
1.2.2 Graphic card with NVIDIA chipset.... 5
1.3 Software Installation.... 6
1.4 Running the NVR Software 10

CHAPTER 2 USING THE NVR SOFTWARE....11

2.1 Preview the Live Video....11
2.1.1 Setting Up and Using the Emap 18
2.1.2 To Use the Emap 19
2.1.3 Familiarizing the Buttons in PTZ Camera Controller.... 20
2.1.4 Using Event Log Viewer 21
2.1.4.1 Using POS Viewer 22
2.2 Using the NVR System in Compact Mode 23
2.3 Playback the Recorded Video.... 25
2.3.1 To Cut and Save the Wanted Portion of the Recorded Video 32
2.3.2 To Bookmark a Section of the Video.... 33
2.3.3 To Search Using the Visual Search 34
2.3.4 To Search Using the Event Search.... 35
2.3.5 To Search Using the Intelligent Search.... 36
2.3.6 Watermark Verification.... 37
2.3.7 To Setup the IP PTZ Camera.... 38

CHAPTER 3 CUSTOMIZING THE NVR SYSTEM....41

3.1 System Setting 41
3.1.1 To Set the POS Setting.... 57
General Setting.... 57
Setup POS Device.... 59
Advanced Setting 63
POS Database Setting 64
3.2 Camera Setting.... 65
3.2.1 Create a Camera Group 71
3.3 Recording Setting 74
3.4 Network Setting 77
3.5 Schedule Setting 80

3.5.1 To set schedule at a specific portion of time in that hour 82
3.6 BACKUP SETTING 83
3.6.1 Setup Quick Backup 85
3.7 SENSOR SETTING 86
3.8 RELAY SETTING 87
3.8.1 To Setup External I/O Box 88
3.9 ALARM SETTING 91
3.9.1 To Setup the Alarm Sound Setting 97
3.9.2 To Setup Send E-mail Setting 98
3.9.3 To Setup FTP Setting 99
3.9.4 To Setup Alarm Recording Setting 100
3.9.5 To Setup SMS/MMS Setting 101
3.9.6 To Setup PTZ Preset Point 102
3.9.7 To Setup Alarm SOP 102
3.9.8 To Setup CMS Setting 103
3.9.9 To Setup POS Keyword Setting 104
3.10 USER SETTING 105

CHAPTER 4 PLAYBACK BACKUP VIDEO ON PC 107

4.1 FAMILIARIZING QPLAYER BUTTONS 107

CHAPTER 5 USING THE REMOTE PROGRAMS 111

5.1 FAMILIARIZING THE PCVIEWER 112
5.1.1 PCViewer Screen 112
5.1.2 PCViewer Control Panel 114
5.1.3 Playback Mode Control Panel 117
5.1.4 To Setup Remote System Setting 119
Basic Setting 119
Advance Setting 121
System Setting 121
Camera Setting 126
Record Setting 127
Network Setting 129
Schedule Setting 132
Alarm Setting 134
5.2 FAMILIARIZING THE REMOTE CONSOLE BUTTONS 140
5.2.1 To Setup Remote Console Setting 142
5.3 FAMILIARIZING THE BUTTONS IN PTZ CAMERA CONTROLLER 144
5.4 USING THE REMOTE PLAYBACK 145
5.4.1 Familiarizing the Local Playback Buttons 147
5.4.2 Familiarizing the RealTime Playback Buttons 151
5.4.3 Familiarizing the Download and Playback Buttons 154

5.5 USING HANDYVIEWER TO ACCESS NVR SERVER 156
5.6 USING PDAVIEWER TO ACCESS NVR SERVER 156
5.6.1 To install PDAViewer from the Internet 156
5.6.2 To Use the PDAViewer 158
5.6.3 To Playback in PDAViewer 161
5.7 USING JAVAVIEWER TO ACCESS NVR SERVER 162
5.7.1 To install JavaViewer from the NVR Server 162
5.7.2 To Use the JavaViewer 162

CHAPTER 6 USING THE REMOTE CONTROL SERVER 164

APPENDIX A REGISTERING DOMAIN NAMES 165

APPENDIX B NETWORK SERVICE PORT 169

APPENDIX C USING DEBUG TOOL 170

APPENDIX D IMAGE VERIFICATION 171

LIMITED WARRANTY 172

Manual Conventions

The following conventions are used throughout this manual.

	Caution symbol is intended to alert the user of the important installation and operating instructions. Fail to comply may damage the system.
	Information symbol is intended to provide additional information for the purpose of clarification.

NOTICE

- INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTIEC.
- THE INFORMATION CONTAINED HEREIN IS TO BE CONSIDERED FOR REFERENCT ONLY.

Chapter 1 Introduction

AVer NXU Lite is a NVR application that can connect up to 32 AVer IP cameras for monitoring, recording, and playback.

1.1 Minimum Computer System Requirements

The NXU Lite can install on any computer but the computer system needs to meet the minimum system requirements.

Item	Recommended
CPU	1. Pentium® 4 3.2 GHz or higher 2. Dual core CPU is highly recommended
Mother Board	Intel G41/P43/X58/H55/P55/H61/H67/P67/Z68 chipset
RAM	1GB or higher
At least 3G RAM is required if you want to install up to 42 mega-pixel IP cameras on your NVR system.	
HDD	120GB or more
Ethernet	10/100/1000 Base-T Ethernet card
OS	Windows XP Professional(32bit) / 7 Professional (32bit)/ 7 Professional (64bit)
Others	Sound card and speakers

For Windows 7, do the following setting in order to operate DVR normally.

- To disable **User Account Control (UAC)** before enter DVR system. To disable UAC, please go to User Account setting in Control Panel to turn User Account Control off. **If UAC doesn't disable, the DVR program will not allow to be installed.**
- Adjust the **Display** mode to **Basic** mode.
- When formatting HDD, please select 64K allocation unit size.

1.2 Dual Monitors Setup

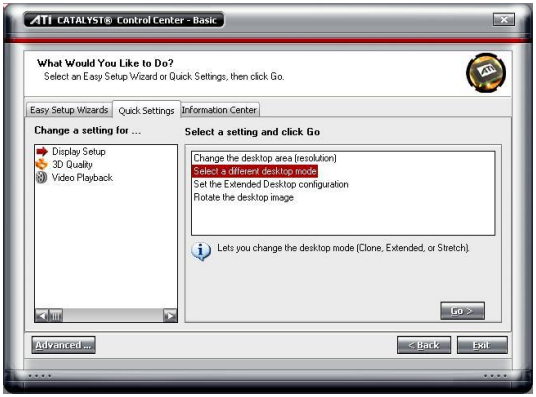
The NVR system Supports Single and Dual monitor displays. When using dual monitors, the Emap and Playback function will be display on the second monitor.
The Video configuration is different for each different VGA chipsets. Please follow the steps below to setup the dual monitors display.

1.2.1 Graphic card with ATi chipset

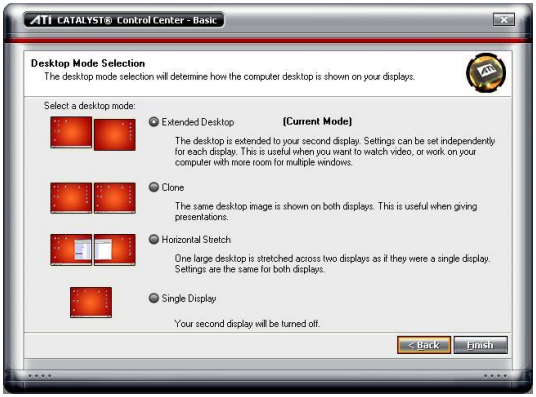
1. Enter the ATI Catalyst Control Center, user can click the short-cut or right click on the screen.

2. There are two modes to select ─ Basic and Advanced.

3. If user selected Basic mode, press the **Quick Settings** tab. Then select the **Select a different desktop mode** and click **Go**.



4. Select the **Extended Desktop** and then click **Finish**.



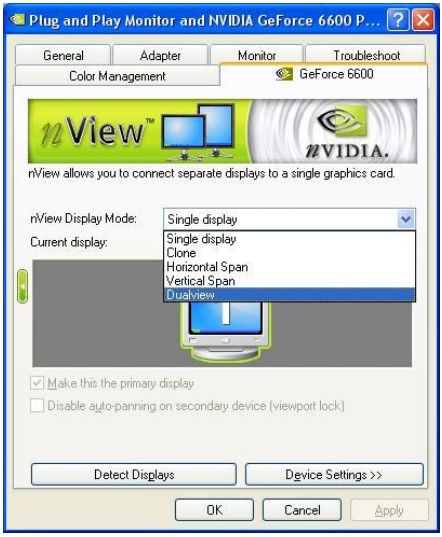
5. If user selected the Advanced mode, click the **View** button.

6. In **Display Manager**, right click on the second Display on the right side and select **Extend Main onto monitor**.

7. Adjust each monitor resolution to 1024x768, 1440x900, 1680x1050, 1920x1200 or 1920x1080.

1.2.2 Graphic card with NVIDIA chipset

1. Click the NVIDIA nView, and select the **Dualview** mode.
2. Adjust each monitor resolution to 1024x768, 1440x900, 1680x1050, 1920x1200 or 1920x1080



3. To review if the display mode is correct, you can check the task bar. The task bar will show on the first monitor only.

Monitor 1 **Monitor 2**

1.3 Software Installation

Please read the following information before install NXU Lite NVR application.

If user has installed AVer NV DVR system already, user doesn't need to install NXU Lite again. Please uses NV DVR system to connect AVer IP camera that user has purchased.

Before installing the software, make sure that the Windows OS patches and the video graphic card driver are **UPDATED**.

We **HIGHLY RECOMMEND** having three (3) separate drives for the main system (OS and NVR software), storage and backup. The ideal hard disk size for the main drive is 20GB. As for the storage and backup, at least 60GB each. The hard drives format must be in **NTFS**. This way we can maintain an optimized system for your security.

To ensure getting the latest copy of NVR software, go and download the updated version from the following site:

Worldwide :

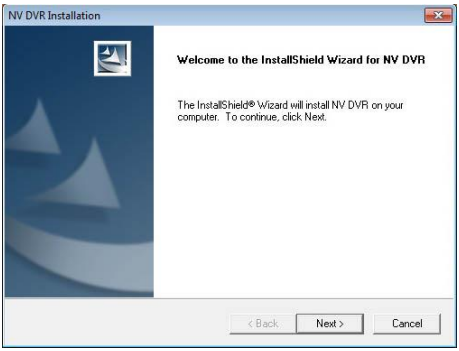
http://surveillance.aver.com/download-center

US/CANADA:

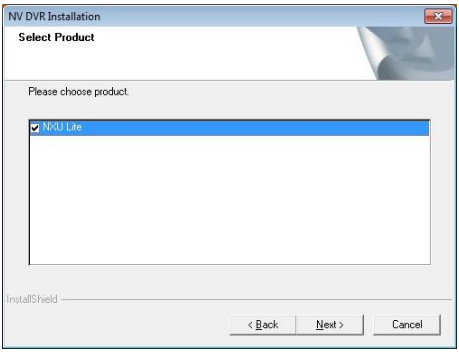
http://www.averusa.com/surveillance/download.aspx

Follow the below steps to install the NVR application:

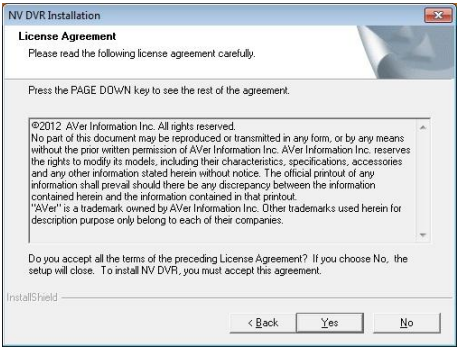
1. Place the Software CD into the CD-ROM drive then click **Install Surveillance System**. Then, click **Next** to continue.



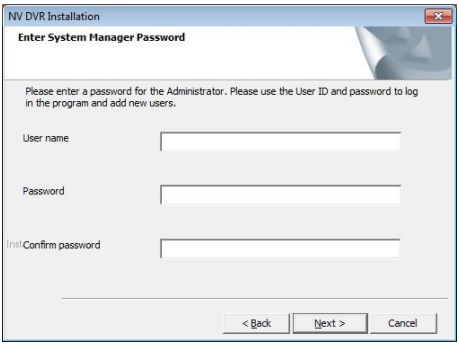
2. Select the NXU Lite to install and click **Next** to continue.



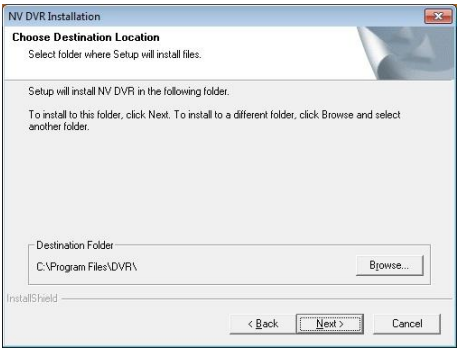
3. Read the License Agreement and click **Yes** to accept the agreement. If you do not agree the license agreement, the installation will be cancel.



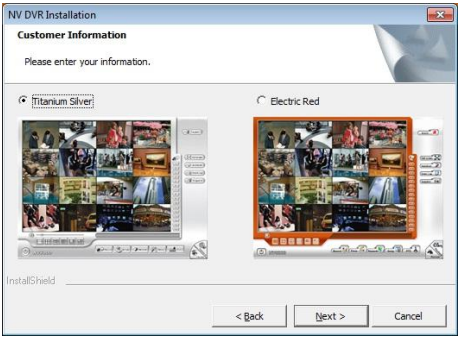
4. Setup the **User name** and **Password** for login NXU Lite system. Re-enter the password in **Confirm password** column and click **Next** to go next step.



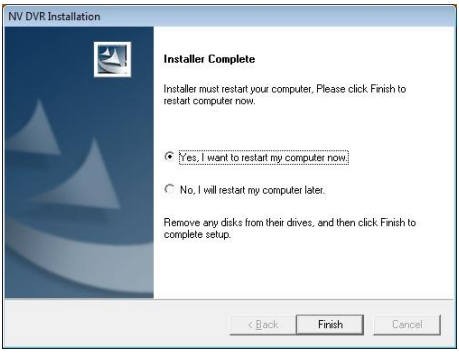
5. Set the install destination, click **Browse** to change the default destination folder. If user doesn't want to change, then, click **Next** to continue.



6. Select the skin color of NXU Lite application – **Titanium Sliver** or **Electric Red**, then, click **Next** to start installation.



7. After installation completed, user need to restart your computer. Select “**Yes, I want to restart my computer now”** and click **Finish** to reboot computer.

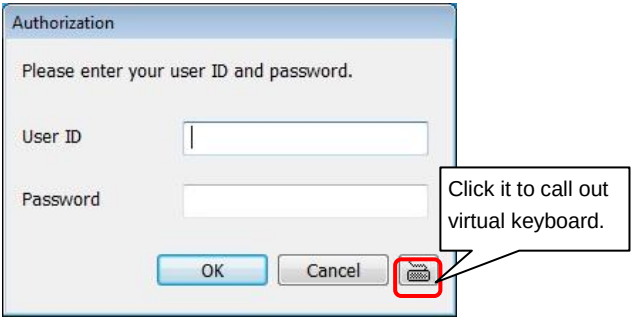


8. You may now run the application program. To run the application, click on your PC desktop or click **Start** > **Programs** > **DVR** > **NXU Lite**.

1.4 Running the NVR Software

To run the application, double-click on your PC desktop or click **Start** > **Programs** > **DVR** > **NXU Lite**.

For security purpose, some of the features would require you to enter User name and Password before it can be accessed. When the Authorization dialog box appears, key in your User ID and Password. (If this is the first time, enter the one you have registered when installing the software.)

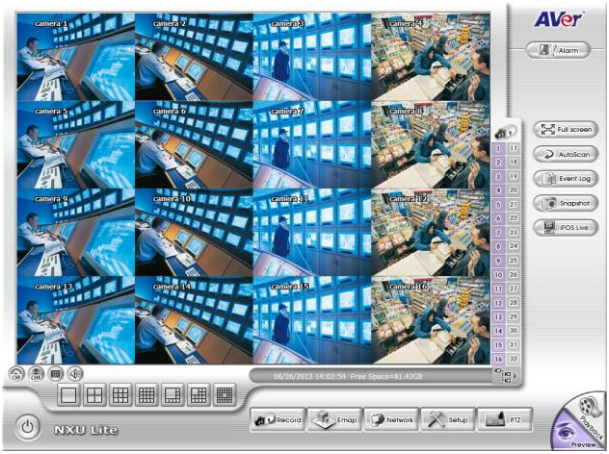


Please make sure the cursor is located on User ID or Password column if user has call out virtual keyboard for entering ID and password.

Chapter 2 Using the NVR Software

2.1 Preview the Live Video

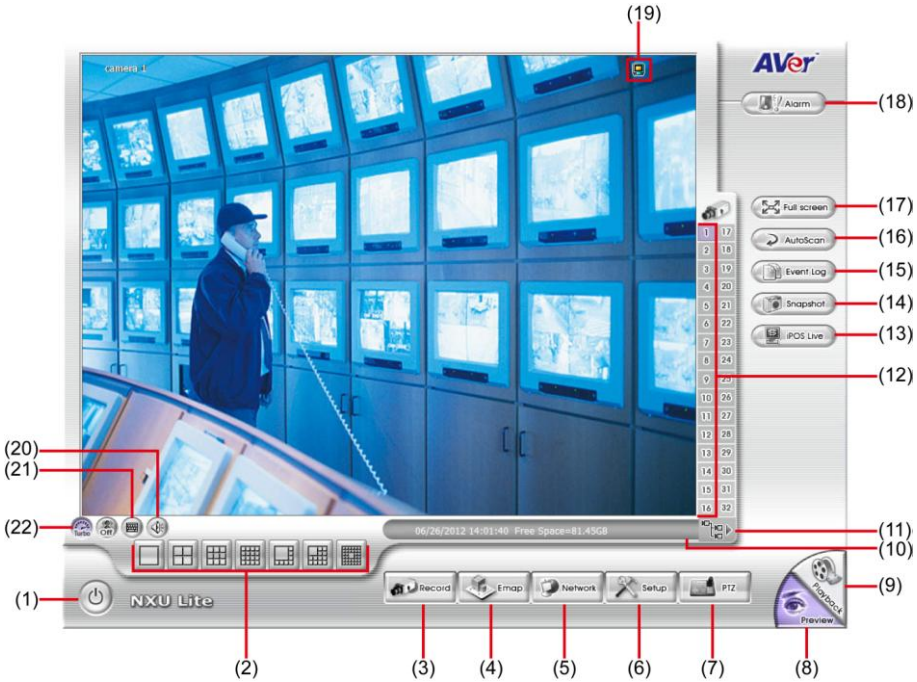
After the successful login, the preview screen will be shown. User can start to connect IP camera, monitor live video, enable/disable record, change screen display mode…etc.

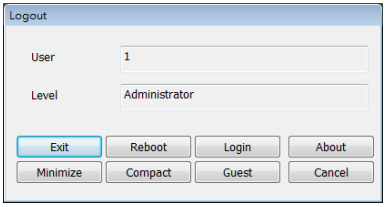


Regular screen display mode

The NXU List NVR system supports wide screen and regular screen displays and supports 1024x768, 1440x900, 1680x1050, 1920x1200 or 1920x1080 display resolution.

Wide screen display mode

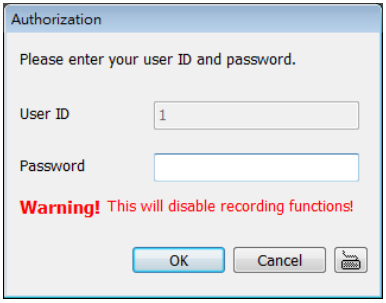


Name	Function
(1) Exit	Call up the Logout dialog box. In the logout dialog box, you may do the following:  - Click **Exit** to close the NVR program. - Click **Reboot** to restart NVR system. - Click **Login** to sign-in in different account. - Click **About** to find about the software info. - Click **Minimize** to reduce the NVR to taskbar button. - Click **Compact** to switch to compact mode (see Chapter 4.4). - Click **Guest** to switch to the guest mode. In guest mode, the functions are limited to preview function only. For complete functions of NVR, please login as an administrator. - Click **Cancel** to exit Logout dialog box.

Name	Function
(2) Split Screen Mode	Select from 7 different split screen types to view all the camera, or one camera over the other or alongside on a single screen. It also allows you to switch and view different camera number.

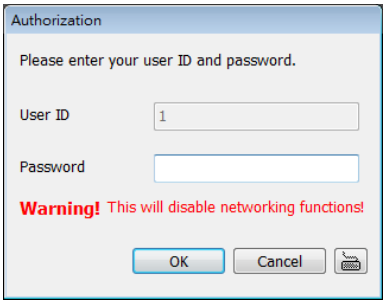
- If there are only 4 cameras, you won't be able to switch to 9, 16, 13, and 32 split screen mode.
- The NVR system will save the current operating mode (split screen mode, auto scan, full screen, and compact mode status) when shutdown NVR application and apply the mode status for next login.
- When you are in single screen mode, **Right-click** and **Drag** a square on the area you want to enlarge. Using left button of mouse click on the enlarge screen area and user can move the screen for viewing. Right-click on screen again will back to normal view.
- In multiple-screen mode, user can re-arrange the channels' display order. **Right click** the video screen of the channel and **Drag** on where you want to relocate it. However, the changed display order of channel only applies in preview mode and wouldn't apply in playback.

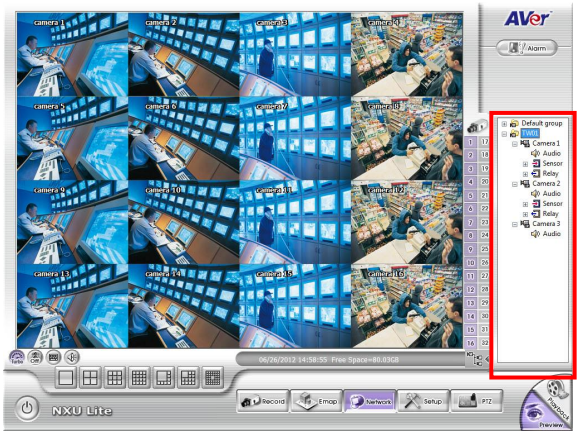
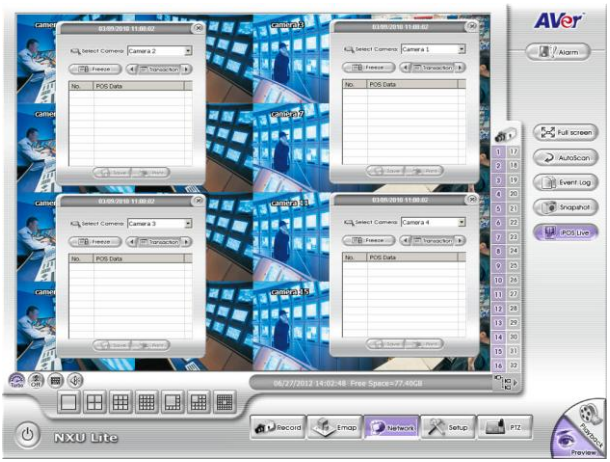
(3) Record	Start/stop video recording. The authorize password is required for disabling the record function. The authorization dialog will show the warning message to inform the user for stop recording.

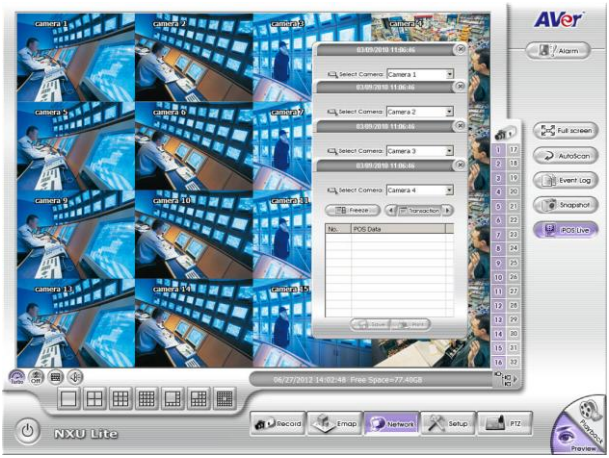
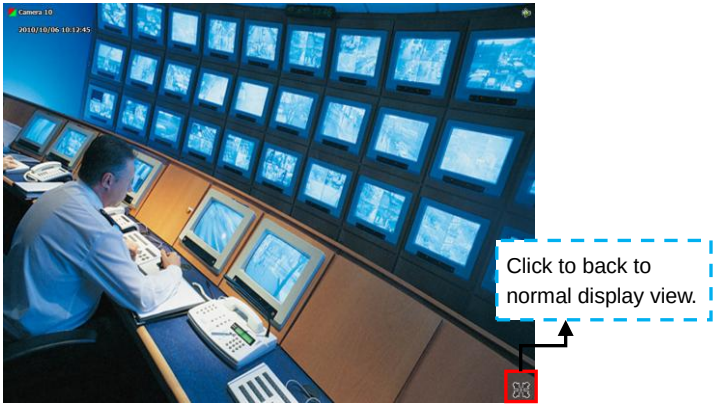


Please make sure the cursor is located on Password column if user has call out virtual keyboard for entering ID and password.

(4) Emap	Display the map in each area, and the location of camera/ sensor/ relay and the warning (see also Chapter 2.1.1).

Name	Function
(5) Network	Enable/disable remote system access. This feature allows you to access NVR server from a remote location via internet connection. The authorize password is required for disabling the network function. The authorization dialog will show the warning message to inform the user for disabling network.  Please make sure the cursor is located on Password column if user has call out virtual keyboard for entering ID and password.
(6) Setup	Configure the system settings (see also Chapter 3).
(7) PTZ	Access PTZ control panel. Beside PTZ camera, NVR system also support mega pixel IP PTZ camera (see also Chapter 2.1.3).
(8) Preview	Switch to Preview/Advanced mode. This allows you to view live camera display. Press **ctrl + F** can freeze the live preview video screen. And then, click **Snapshot** can save the freeze video screen.
(9) Playback	Switch to Playback mode. This allows you to view the recorded video file (see Chapter 2.3).
(10) Status Bar	Display the current date, time and hard disk free space.

Name	Function
(11) Camera Group Tree	To view the user defined channel group tree(see also Chapter 3.2.2). Click **+** of group to extend group and drag the camera to surveillance screen to view. Click **+** of camera to view the camera information. 
(12) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(13) iPOS Live	To view the real time iPOS data of channels. Click the iPOSLive to call out the real time iPOS data window.  User can move the channel of iPOS window apart to proper position. If user didn't enable the multi-channel of iPOSLive(see also POS Adavanced Setting in 3.1.1), and then, user only can view one channel each time.

Name	Function
(13) iPOS Live	To switch to different channel, click **Select Camera** drop down list to select the channel. To tempore stop iPOS data coming, click **Freeze**. To un-freeze, click **Transaction**. 
(14) Snapshot	Capture and save the screen shot either in *.jpg or *.bmp format.
(15) Event log	Show the record of activities that take place in the system (also see Chapter 2.1.4).
(16) AutoScan	Start/Stop video screen cycle switch (see also Chapter 3.1 #6).
(17) Full screen	Use the entire area of the screen to only display the video. To return, press the right button of the mouse or **ESC** on the keyboard or click the arrow icon. When NVR in full screen mode, each channel will display current date and time.  When you switch to full screen in multiple-screen mode, Left click to toggle to only display one of the video in the multiple-screen mode or all.

Name	Function
(18) Alarm	Alert and display warning info. Only Administrator-level can reset and turn on, off and trigger the Sensor and Relay by right-clicking the item in the Sensor and Relay list.
(19) Live Playback button	When live playback function has enabled in **Miscellaneous** at **System Setting**, the live playback icon is appeared on Preview UI while recording status. Click to playback the recorded file instantly in preview mode. When the channel is in live playback mode, the icon is . Move the mouse to the bottom of the live playback channel, the playback tool bar ( ) will show up. Using the playback tool bar to control the playback. Total 4 channels can be live playback at the same time.
(20) Volume	Adjust the sound volume.
(21) On Screen Keyboard	If the keyboard is not available, you may use the Virtual Keyboard.

IP camera doesn't support de-interlace.

(22) Turbo mode	To improve the smoothness of live video. The default is enabled( ), but in following situation: - The channel is IPCam and is in 1-split screen. - The channel is remote NVR and is in 1-split screen. Turbo function setup is in depended for each channel. To turn off turbo function ( ), click turbo button. **[Note]** In multiple split screen mode, the turbo button is gray out.

2.1.1 Setting Up and Using the Emap

Emap can hold up to 8 maps in *.bmp/*.jpg format. You may locate the camera, sensor and relay on the map.

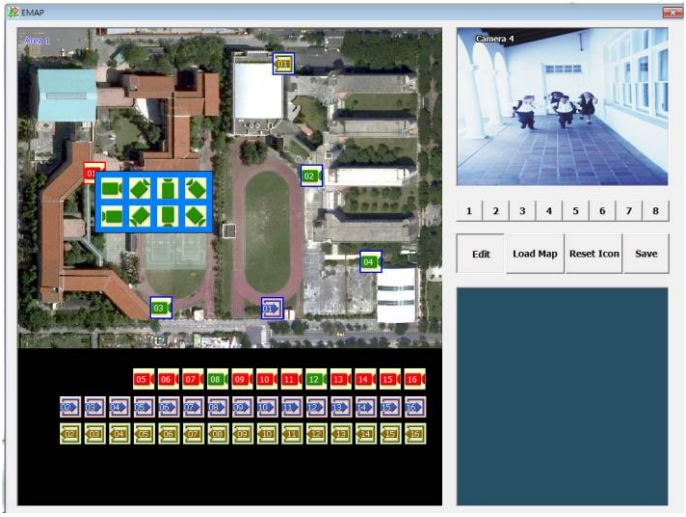
> The NVR system cannot recognize the file format has been changed. Please do not change the *.tif or other file format to *.bmp/*.jpg file format.

To Set Up the Emap

1. Click **Emap**.
2. When the Emap screen appears, click the area number (1 to 8 buttons) on where you want to insert the map.
3. Click **Load Map** to insert the map. When the open dialog box appears, locate and select the map and click **Open**.

> - The NVR only supports 24-bit and 32-bit bmp and jpeg file.
> - The map file size is no more than 200K.

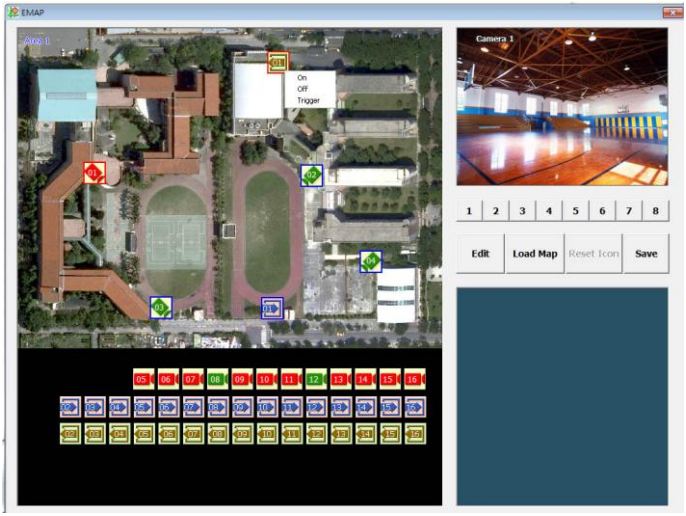
4. When the inserted map appears on the Emap screen, click **Edit**. You may now drag the camera, sensor, and relay icons to its place on the map. Icons on the map can be relocated anywhere.
5. To set the camera direction, right click camera icon can select the camera direction in 8 angles.
6. If you are going to locate the icon on the map to other area, you need to drag the icon to the black pane at the bottom of the Emap screen and then switch to the area on where you want to locate the icon. To bring all the icons back to the black pane at the bottom of the Emap screen, click **Reset Icon**.



7. When you are done, click **Save** button to save the new setting. To close Emap screen, click **X**.

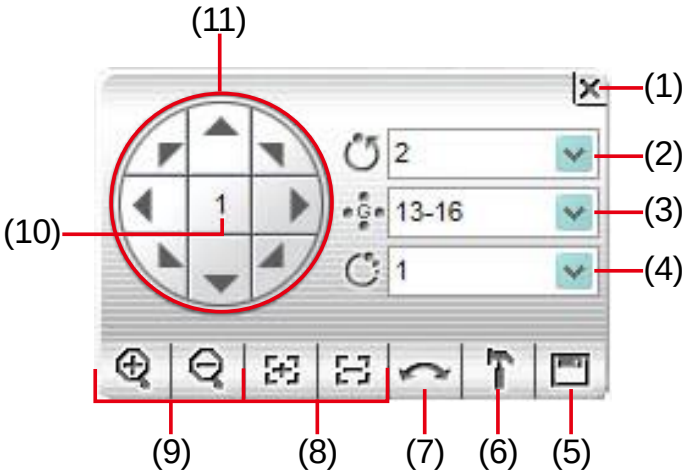
2.1.2 To Use the Emap

1. Click **Emap**.
2. In the Emap screen, click the camera icon to switch on the area where the camera is located on the map and to display the video at the upper right corner of the Emap screen. At the lower right corner of the Emap screen, it lists all the warning message.



3. To control relay, right-click relay icon and select status (on, off, or trigger) of relay.
4. To view different Emap, click Emap number button (1 ~ 8).
5. Click **X** to close Emap screen.

2.1.3 Familiarizing the Buttons in PTZ Camera Controller

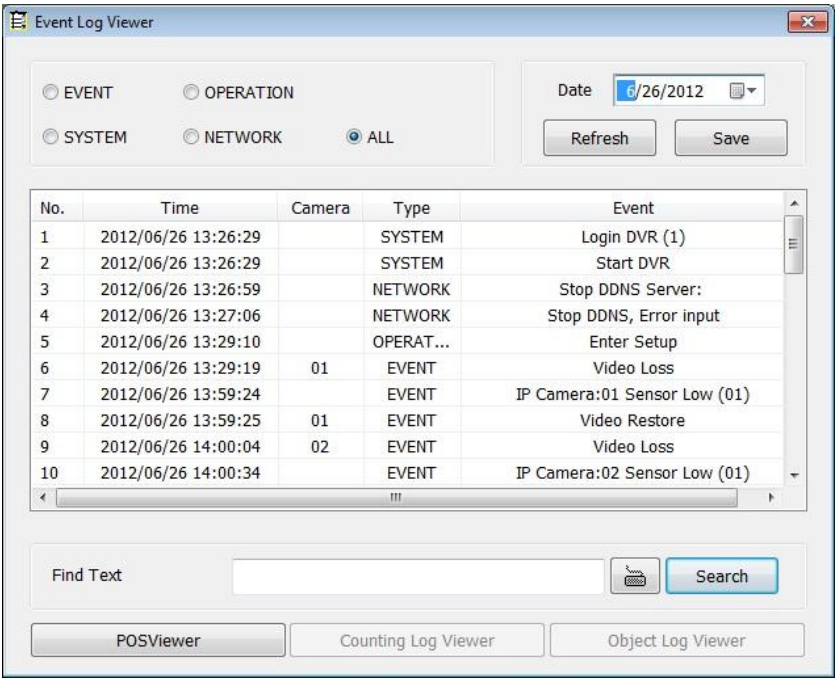


Name	Function
(1) Close	Exit PTZ camera controller.
(2) Camera preset position number	Move the PTZ camera to the preset point.
(3) Group AutoPan	Select to automatically operate PTZ camera in group.
(4) Direction buttons' moving speed	Adjust the moving speed of the PTZ camera lens. This speed will apply to the **(11) Direction buttons**' moving speed only.
(5) Save Camera preset position	Save the PTZ camera preset position number. Select the camera and click the preset position number and save it.
(6) Setup	Configure PTZ cameras (also see Chapter 2.3.7).
(7) AutoPan	Operate the PTZ cameras automatically based on the selected camera group preset position number. User needs to select the **(3) Group AutoPan**, then, click **(7)Auto Pan** button.
(8) Zoom +/-	Zoom in and out the image.
(9) Focus +/-	Adjust the focus manually to produce clear image.
(10) Camera ID	Display the PTZ camera number that is being operated.
(11) Direction buttons	Move and position the focal point of the PTZ camera. The support of direction button depends on the PTZ camera.

2.1.4 Using Event Log Viewer

Show the record of activities that take place in the system.

- NVR system now supports HDD failure pre-detection mechanism called **HDD S.M.A.R.T.** function. Once when NVR system has detected the HDD failure possibility, an event log will be occurred and user can check it in Event Log Viewer window.
- The HDD S.M.A.R.T. function accurate is approximately about **60%**.
- The HDD warming event log will issue once a day.



HDD S.M.A.R.T. warning messages' description are as following:

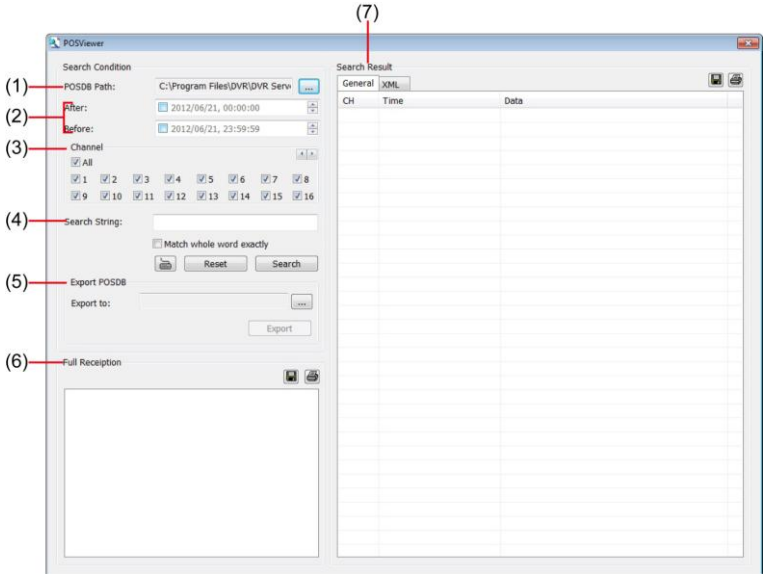
- **HDD warning (Low risk):** abnormal situations are occurred frequently but hard disk can recovery by itself.
- **HDD warning(High risk):** When HDD warring(Low risk) event has occurred too frequently, even though hard disk can recovery by itself; however hard disk recovery too frequently will effect performance of hard disk. Therefore, it is recommended to replace the hard disk.

  [Note] HDD S.M.A.R.T. is an accumulation mechanism, therefore the HDD warning (High risk) event log will issue once every day until hard disk has been replaced.

1. Click the Event Log button on NVR application main interface. The Event log viewer window will show up.

2. Select the **Date** to view or search certain event log by key word. Enter the key word in **Find Text** column and click **Search** button.
3. To filter the records, select and click the select button to display Event, System, Operation, Network or All.
4. The events list which display on the screen can be saved as text file format. To save the events list, click **Save** button.
5. To view POS event log, click **POSViewer** bar to call out the POSViewer window (see also Using POS Viewer).

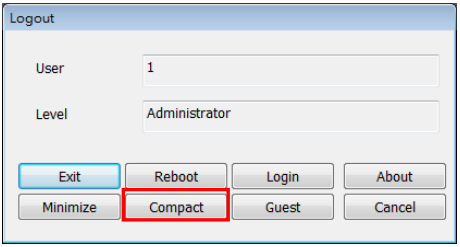
2.1.4.1 Using POS Viewer

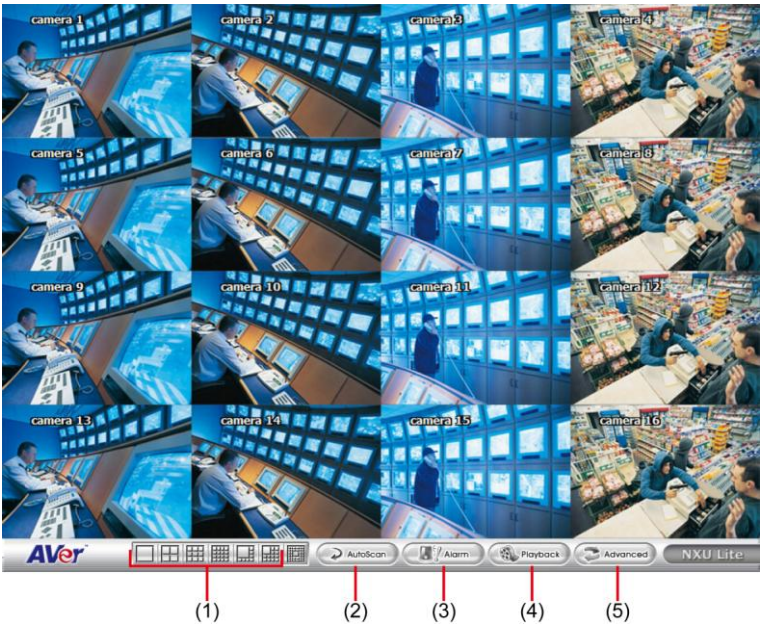


Name	Function
(1) POSDB Path	The storage path for POS event log. Click ... to change the storage path.
(2) Before/After	Set a time period before and after of POS event log.
(3) Channel	Select the POS event log of channel
(4) Search String	Enter specific key word or word string to search the POS event log. Mark the **Match whole word exactly** box if wants to find exactly key word or word string of POS event log.
(5)Export POSDB	It allows user to save the POS database to selected storage path in excel format. Click ... to change the storage path. Click **Export** to save the POSDB to selected storage path.
(6) Full Reception	Display the POS event log detail that user selected from Search Result window. Click to save the POS event log. Click to print out the POS event log.
(7) Search Result	Display the POS event log of search result. Click to save the search result. Click to print out the search result.

2.2 Using the NVR System in Compact Mode

Compact mode provides bigger monitor view and less function buttons. To view in Compact mode, click **Exit** button. In the logout dialog box, click **Compact**.





Name	Function
(1) Split Screen Mode	Select from 7 different split screen type to view all the camera, or one camera over the other or alongside on a single screen.

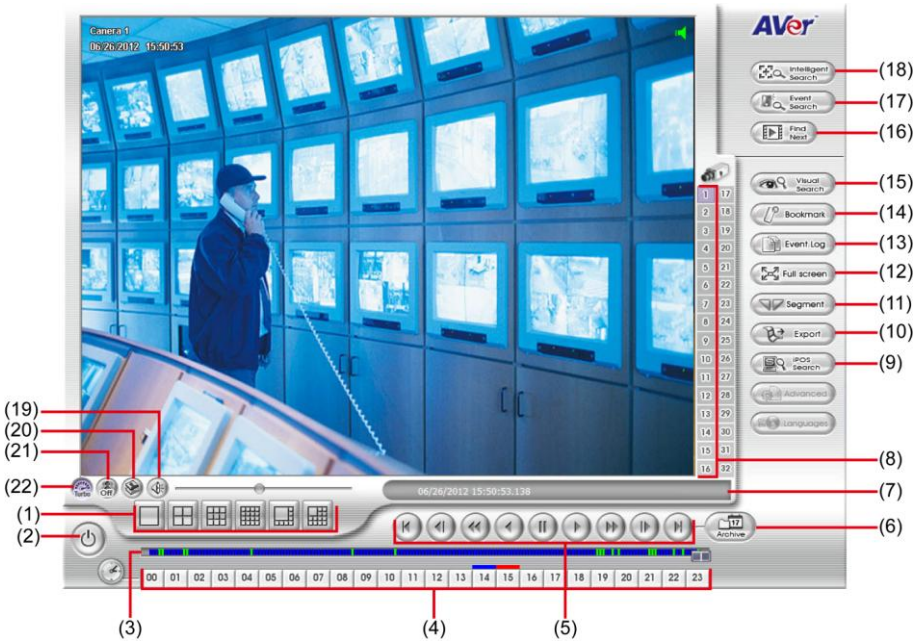
- If there are only 4 cameras, you won't be able to switch to 9, 16, 13, and 32 split screen mode.
- When you are in single screen mode, **Right click** and **Drag** a square on the area you want to enlarge.
- When you are in multiple-screen mode, **Right click** the video screen of the camera and **Drag** on where you want to locate it. To only display one of the video in the multiple-screen mode, **Left click** the video screen you want to display.

Name	Function
(2) AutoScan	Start/Stop video screen cycle switch
(3) Alarm	Alert and display warning information.
(4) Playback	Switch to Playback mode. This allows you to view the recorded video file. (see Chapter 2.3)
(5) Advanced	Switch to Preview/Advanced mode.

2.3 Playback the Recorded Video

To switch in Playback mode, click **Playback** button at the lower right corner of Advanced/Preview mode user interface.

In wide screen mode, click ◀ button call out the progress bar. According color of progress bar, user can know the recording file type. Blue means regular recording file. Green means motion recording file. Yellow means video loss while recording. Red is alarm triggered while recording. Black is no record data.



Name	Function
(1) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.

- If there are only 4 cameras enabled, you won't be able to switch to 9, 16, and 13 split screen mode.
- To zoom in an area on the screen, **Right-click** and **Drag** a square on the area you want to enlarge. Left-click on the enlarge screen area and user can move the screen for viewing. Right-click on screen again will back to normal view.

(2) Exit	Close the Playback application.
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track. When in single screen playback mode, the colors in progress bar have different means. ■ Green color: a motion was detected and recorded ■ Blue color: is a general (always) recording file and no any event or motion happen during recording ■ Red color: the sensor was triggered while recording ■ Black color: no record file at the time period ■ Yellow color: the video loss happen while recording

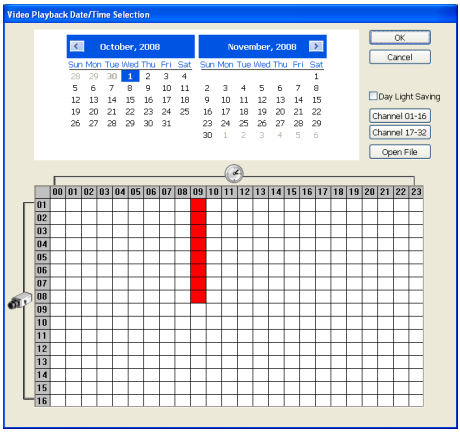
The progress bar is designed and drawn based on key frame only.

Name	Function
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.

The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.

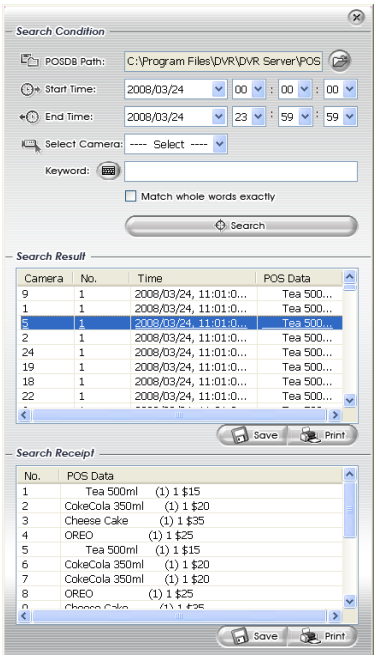
(5) Playback Control Buttons	**Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2X, 1/4X, 1/8X, 1/16X, or 1/32X. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.

While faster play status, press **play** button, then, the play speed will back to normal playback speed (1x).

Name	Function
(6) Archive	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. − **OPEN FILE:** user can open the recorded file from HDD − **Channel 01~ 16&Channel 17 ~ 32:** Switch to different channel group of playback calendar. − **Day Light Saving:** the playback calendar will show the available video records during day light saving time period. 

The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.

(7) Status bar	Display the recorded date, time and play speed.
(8) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.

Name	Function
(9) iPOS Search	To find iPOS event by keyword or period. **POSOB Path:** where the iPOS data located. **Start Time:** select the search start time and date **End Time:** select the search end time and date **Select Camera:** select the camera for iPOS events search **Keyword:** enter a keyword to search iPOS event. The multiple keywords are supported. User can use "**&**" symbol to enter multiple keywords to search (ex: coke&cookie). ➢ **Match whole words exactly:** the iPOS event must 100% match the keyword that user has entered. The search result will display in Search Result window. User can click specific iPOS event to view and the iPOS detail will display in Search Receipt. To save the search result, click **Save** button. Click **Print** button to print the search result. To save the selected iPOS search receipt, click **Save**. Click **Print** to print the selected iPOS event's detail. 

Name	Function
(10) Export	Export includes Snapshot, Print, Output Video Clip, and Backup function. ■ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. ■ **Print:** Print the screen shot. ■ **Output Video Clip:** Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 2.3.1). ■ **Backup:** Save the playback file to USB device or DVD-ROM disk(see also Chapter 5.6 Backup Setting)
(11) Segment	Keep a portion of the recorded video (see also Chapter 2.3.1).
(12) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or **ESC** on the keyboard or click the arrow icon. When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.
When there are dual monitors with 32 channels, the full screen mode will split into 16 channels on each monitor.	
(13) Event log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(14) Bookmark	Mark a reference point when previewing the recorded video file to which you may return for later reference. You may also set it to protect the file. (See also Chapter 2.3.2)
(15) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also Chapter 2.3.3)
(16) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.

Name	Function
(17) Event Search	Search from the recorded activities that take place in the system (i.e., Sensor, Motion, Video Loss, POS). (See also Chapter 2.3.4)
(18) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 2.3.5).
(19) Audio	Enable/disable volume. To adjust audio volume, drag and move the audio volume bar beside the audio button.
(20) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.
IP camera doesn't support de-interlace.	
(21) Watermark	To verify the playback video has not been modified (also see Chapter 2.3.6).
(22) Turbo Mode	To improve the smoothness of live video. The default is enabled( ), but in following situation: - The channel is IP camera and is in 1 single screen. - The channel is remote DVR and is in 1 single screen. - The channel is analog camera, in 1 single screen, and decoding way is software decode Turbo function setup is in depended for each channel. To turn off turbo function ( ), click turbo button. **[Note]** In multiple split screen mode, the turbo button is not functional.

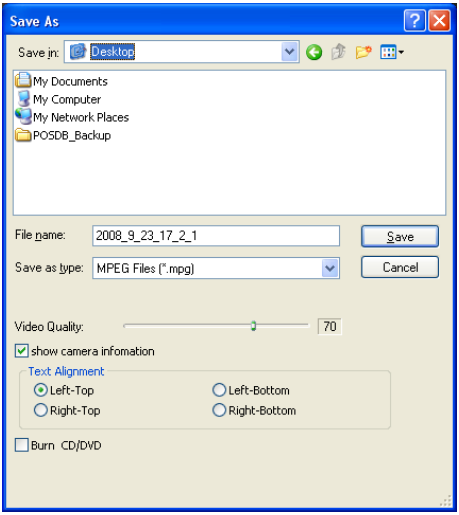
2.3.1 To Cut and Save the Wanted Portion of the Recorded Video

1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.

2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation or set the segment marks from the start, click **Segment** button again.

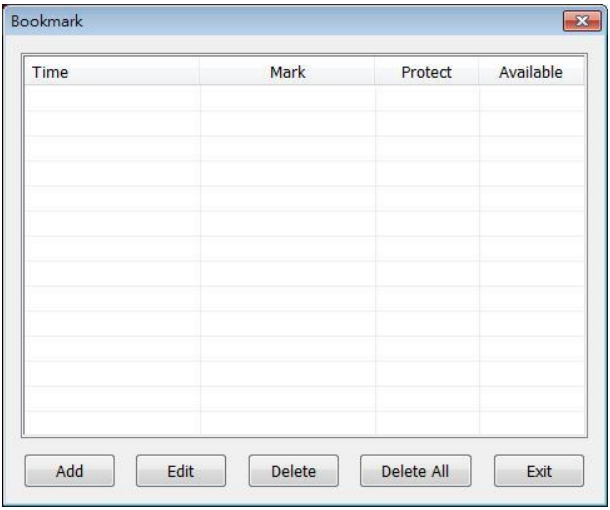
3. Click **Export → Output Video Clip** button to save the wanted clip.
4. In the Save As dialog box, locate on where you want to save the file or choose to **Burn** the video segment to VCD/DVD ROM (only for .*mpeg file format).
5. Select the file type and mark "**show camera information**" to display the camera name, recording date, and time on screen when playback. If user doesn't mark this option, the camera name, recording date, and time won't be shown on screen when playback.
6. If the select the file type is ***.avi**, user can mark **included audio** to include audio in output video segment.
7. To adjust **Video Quality** if needed.
8. Click **Save** to save the video segment.

- MPGE format doesn't support audio output.
- Right-click function is disabling for security issue.

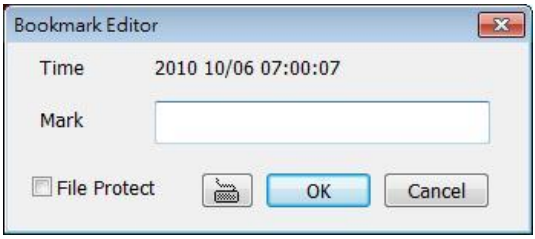


2.3.2 To Bookmark a Section of the Video

1. Click **Bookmark**. The video playback stops when the bookmark button is executed.



2. In the Bookmark dialog box, you may do the following:
3. **Add** to include the new reference mark in the bookmark list. You may select to enable/disable **File Protect** to protect the bookmark file for overwritten.



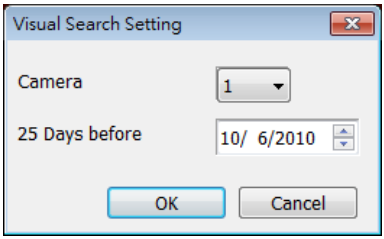
If user has select to enable the file protect, a message dialog will show up to let user to choose to delete protect file or not to delete file when the recycle function has setup (see also 3.1 System setting). Click **Yes** to allow protect file to be deleted, click **No** the protect file will not be deleted even the recycle function has enabled.

- **Edit** to change the mark description or enable/disable file protection.
- **Delete** to remove the selected reference mark in the list.
- **Delete All** to remove all the reference marks in the list.
- **Exit** to close Bookmark dialog box.

4. Select and click one in the bookmark list to preview the file.

2.3.3 To Search Using the Visual Search

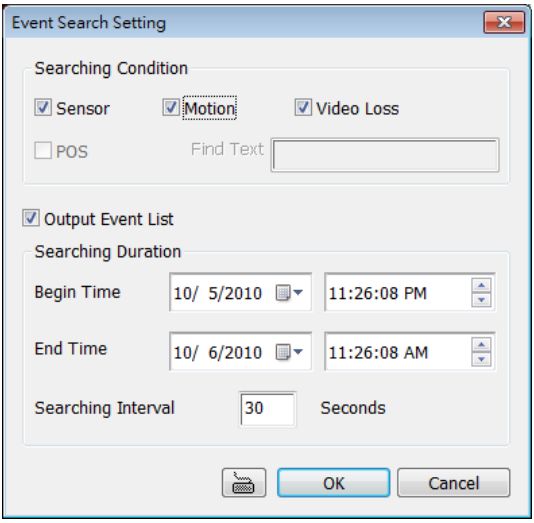
1. Click **Visual Search**.
2. In the Visual Search Setting dialog box, select the Camera number and the date. Then click **OK**.



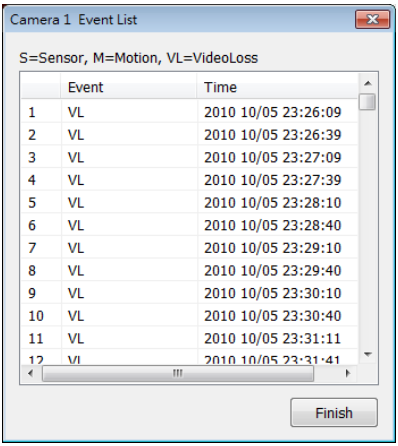
3. When a series of frames appear by date, click on the frame to display another series of frames and search by every Hour of that date, every 3Minutes of that hour, every 10 Seconds of that minute, every Second of that 10 seconds. To go back, click. To view from the selected frame and close event search, click.

2.3.4 To Search Using the Event Search

1. Click on the video screen on where you want to search.
2. Click **Event Search**. The Event Search text (red) would appear at the lower left corner of the screen.



3. In the Event Search Setting dialog box, check the type of condition you want to search. If you select POS, in the Find Text box, type the word. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching click .
4. You may also set to search and list all the result. Just check the **Output Event List** box. In the Search Duration section, set the **Begin Time** and **End Time**. Set the **Searching Interval** time that system won't list out the same events in a period of time that user has setup. Then, click **OK** to start searching.
5. When the Event list appear, click and select the item you want to view.



2.3.5 To Search Using the Intelligent Search

1. Click on the video screen on where you want to search.
2. Click **Intelligent Search**. The Intelligent Search text (red) would appear at the lower left corner of the screen.

3. When the Intelligent Search Setting dialog box and motion detector frame appear, you may adjust the sensitivity bar and the motion detector frame size and location. To set motion detector frame size and location, left click and drag on the screen. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching click

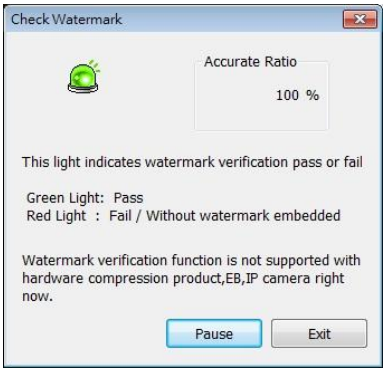
.

   You may also set to search and list all the result. Just check the **List** box. In the Search Duration section, set the **Begin Time** and **End Time**. Set the **Searching Interval** time for in a period of time won't list out the same events. Then, click **OK** to start searching. The search result will show as below figure:

2.3.6 Watermark Verification

Now, NVR supports watermark-checking to identify the authenticity of playback video. NVR program can only verify one channel at a time in playback mode.

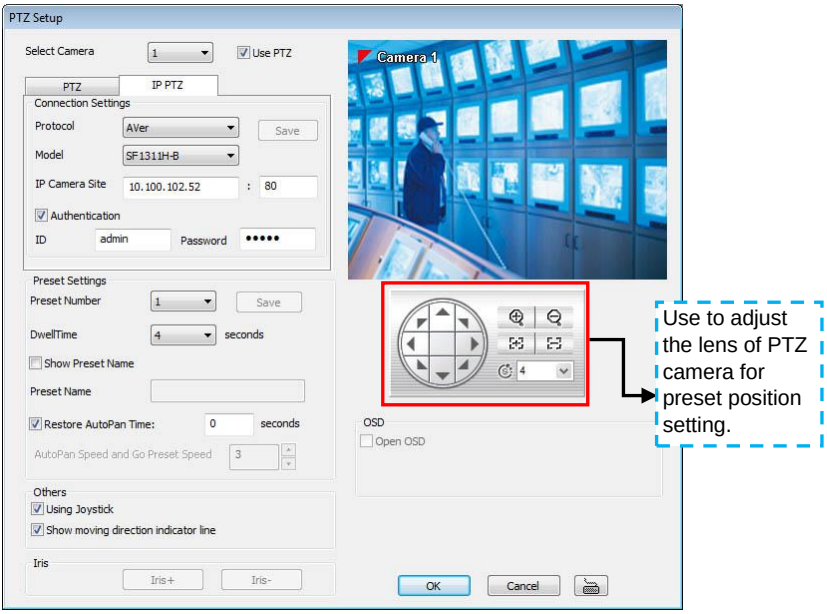
To verify the playback video doesn't been modified. Click to check the video. Watermark verification window will show up as following:



Watermark verification doesn't support the video that is recorded from MPEG IP camera.

2.3.7 To Setup the IP PTZ Camera

1. In the PTZ control panel, click **Setup**.
2. When the PTZ Setup dialog box appears, click **IP PTZ** tab.
3. Select the camera number and mark the **Use PTZ** check box.



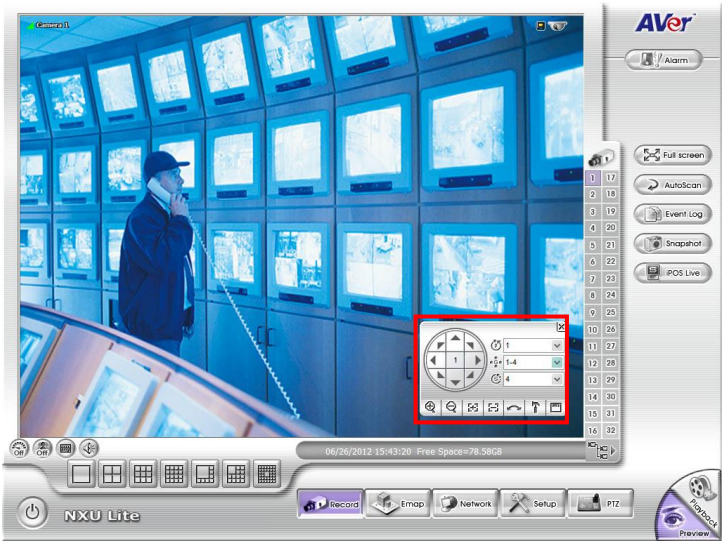
4. In the Connection Settings section, select the **Protocol** and **Model** that is brand of IP PTZ camera and enter the IP or URL of IP camera in **IP Camera Site** column. Mark the **Authentication** box if **ID** and **Password** is required when connecting to IP PTZ camera. And then, click **Save** to keep the settings.
5. In the **Preset Setting** section, use the control panel and adjust the position of the PTZ camera and select the preset number to assign a number for the PTZ camera current position.

The numbers of preset position are depended on the IP camera protocol has supported.

6. Set the **DwellTime** (1-60 sec) for how long the IP PTZ camera stays in that position before it moves to the next one. If you want to add description, check the **Show Preset Name** box and in the **Preset Name** text box, type the word. After is done, click **Save** to keep the settings.
7. Repeat step 5 & 6, if you want to save another IP PTZ camera position.
8. **Restore AutoPan Time:** set a time period for restoring auto path function after the IP PTZ camera has been moved. Mark the check box and set the time period in second. Set the **AutoPan Speed** if the IP PTZ camera that user has used is supported.
9. **Others:** Enable/disable Using Joystick such as USB joystick device.

10. **Show moving direction indicator line:** enable/disable to show the direction line when uses mouse drag on screen in PTZ mode.
11. **Iris:** To adjust the iris of IP PTZ camera. It may not support that depends on brand of the PTZ camera.
12. **OSD:** To allow call out IP PTZ camera factory's OSD setup menu. The OSD setup menu may vary that depends on the brand of IP PTZ camera.
13. When is done, click **OK** to save the setting or Click **Cancel**, to leave without saving the new setting.
14. When PTZ camera is enabling, user can control PTZ camera by using the mouse and on screen PTZ control bar.
15. Click the channel that has supported and enabled the PTZ function. And then, click **PTZ** button on preview UI. The PTZ control panel will show up on the screen.

User can move the on screen PTZ control panel to any position of screen



16. User also can click PTZ icon to call out on-screen PTZ control bar and use mouse to drag on screen to move the PTZ camera lens direction.

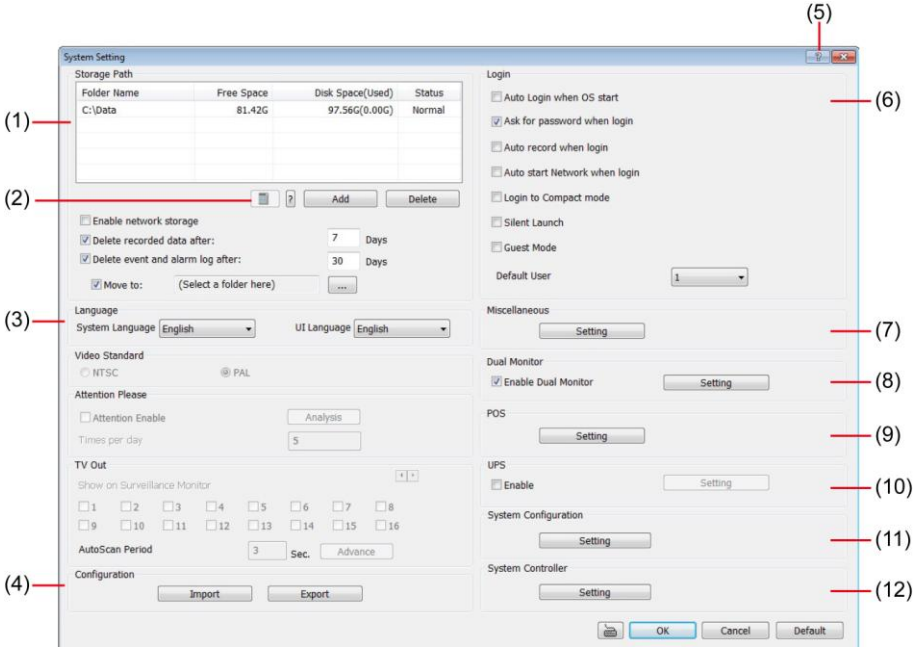
17. In PTZ screen mode, right-click and drag can enlarge the selected area. After enlarged area, left-click can move screen to left and right (User should see a hand icon on screen). To return to normal view, right-click on screen again.

Chapter 3 Customizing the NVR System

In the Preview/Advanced screen mode, click button to customize your NVR. When the NVR configuration setup selection appears, select and click the buttons you want to change the setting.

3.1 System Setting

In the System Setting dialog box, click **OK** to accept the new settings, click **Cancel** to exit without saving, and click **Default** to revert back to original factory setting.

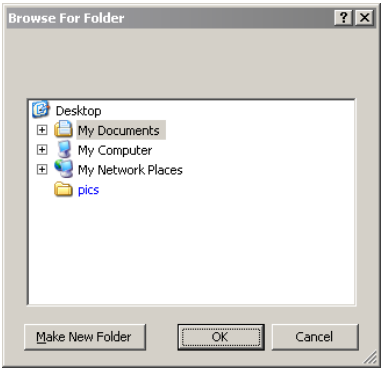


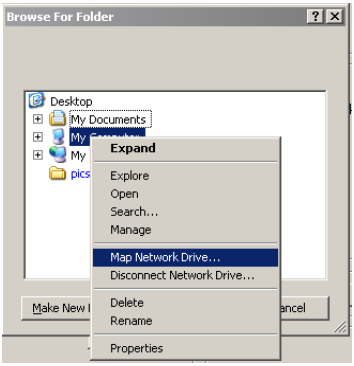
(1) Storage Path

Set the directory on where to save the data. When there is not enough free space to record one hour data, the system automatically replaces the oldest data. In case you have more than one storage path, the system automatically saves the data to the next storage path. You may also add additional network-attached storage (NAS) for extremely high storage capacity. Select the **Enable network storage** check box to send the recorded video in network-attached storage. To add network storage, the Internet storage drive/folder must be mapped as Network Driver in NVR server.

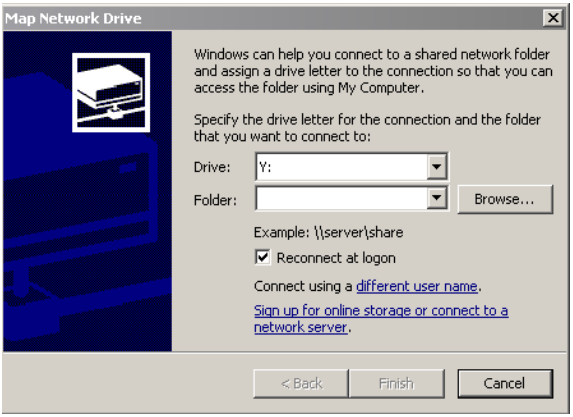
Enable network storage first, and then, click Add. In **Browse For Folder** window, select drive C and right click mouse button, select **Map Network Drive** option.

When using the network storage path, the performance of NAS equipment and your actual network bandwidth might impact the recording and playback performance of the NVR server.





In the **Map Network Drive** window, select the **Drive** and fill in the network drive direction in **Folder** column if you know. Or click **Browse** to find the folder direction. Click **Finish** to complete the network drive mapping. After the network drive has been added, user needs to create a folder for network storage. In **Browse For Folder** window, select the network drive and right click mouse button to add a new folder. And then, click **OK**. User should see a new storage folder display in Storage path list.

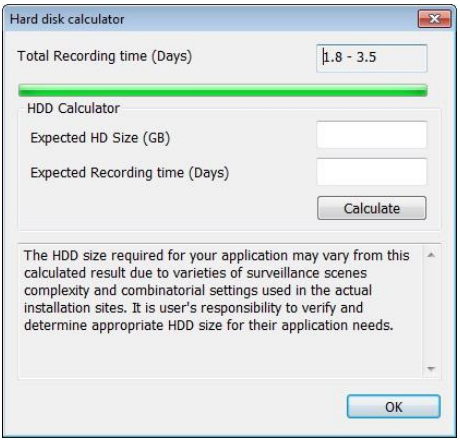


By default the data is stored in C:\Data, to insert another storage path, click **Add**. To remove the selected path, click **Delete**. If you want the system to automatically erase the data after a certain days, enable the **Delete recorded data after** check box and enter the numbers of days in **Days** text box. If you want the system to automatically erase the event and alarm log after a certain days, enable the **Delete event and alarm log after** check box and enter the numbers of days in **Days** text box. To change logs save direction, enable **Move to** and select the new save path.

(2) Hard Disk Calculator

Estimate the hard disk recording capacity. The result of calculation is a rough value which only for reference. The hard disk record capacity will be varied by the real record quality and complexity of video scene.

Click , the hard disk calculator window will show up. **Total Recording time** is the current hard disk recording capacity. Enter the expect hard disk size or expect recording time in **Expected HD Size** or **Expected Record time**, and then click **Calculate** button. Click **OK** to exit the hard disk calculator window. The hard disk calculation is based on the recording setup and current hard disk setup.



(3)Language

Customize the system to display the tool tips and dialogs based on the selected language. By default the language is in English.

(4) Configuration

Backup a copy of all the settings and allows you to regain the same settings back. To save the current settings, click **Export**. To replace the settings with the one you have saved, click **Import**. The export and import file will include Emap configuration.

(5) Help

Click to call out the user's manual. The manual format is PDF format, please make sure your PC has installed Adobe Acrobat reader and version is 7.0 above.

(6) Login

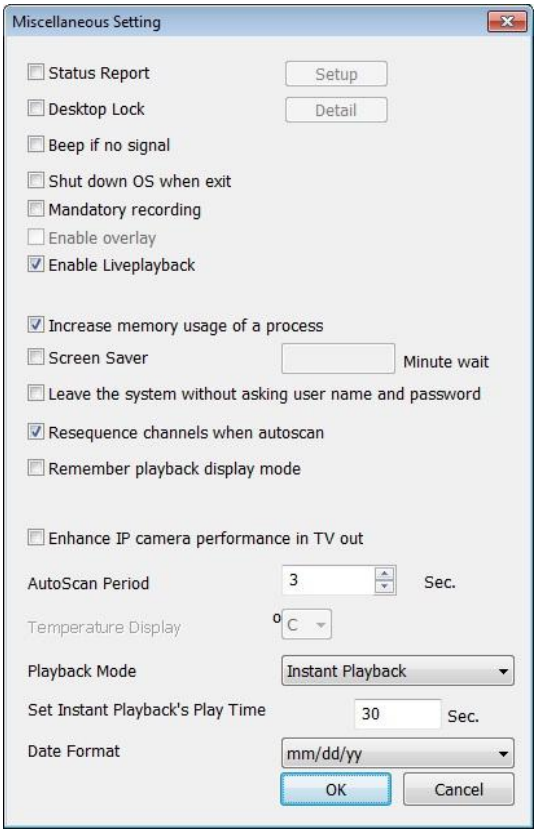
Enable the conditions in Login section you want the system to automatically carry out.

- **Auto Login when OS start**
  Execute the NVR when the operating system is started.
- **Ask for password when login**
  Request to enter User ID and Password each time the NVR is executed.
- **Auto record when login**
  Automatically start video recording when the NVR is executed.
- **Auto start Network when login**
  Automatically enable NVR network connection when login into NVR program.
- **Login to compact mode**
  Switch to compact mode directly when the NVR is executed.
- **Silent Launch**
  Enable the NVR system minimizes on the system tray automatically right after start up.

- **Guest Mode**
  Automatically log in Guest mode when the NVR is executed. In guest mode, the functions are limited to preview and playback only.
- **Default user**
  Automatically log in to the selected default user when the NVR is executed.

(7) Miscellaneous

Enable the conditions in **Miscellaneous** section you want the system to perform.



- **Status Report**
  Send a daily system event and attention analysis report. To change the e-mail settings, click **Setup**.

- **Desktop Lock**
  - ✓ **Block window OS hotkey:** Deactivate the [Ctrl-Alt-Del] and [Windows] keyboard key functions.
  - ✓ **Block windows OS pop-up window:** To block any pop-up window from windows system.

- **Beep if no signal**
  Make sound when the video signal is lost.
- **Shutdown OS when exit**
  Turn off the PC when the NVR application is being closed.
- **Mandatory Record**
  Always record video when software is running
- **Enable Liveplayback**
  Mark to enable live playback function on Preview UI when start to record. User should see the live playback icon( ) on Preview UI.
- **Increase memory usage of process**
  The NVR system supports 42 MP resolution in total for all IP camera channels. When Increase memory usage of process function is disabled, the NVR system only supports 24MP resolution in total for all IP camera channels.

In 64bit Windows OS, Increase memory usage of process function is enabled in default.
In 32bit Windows OS, user need to enable the Increase memory usage of process function manually.

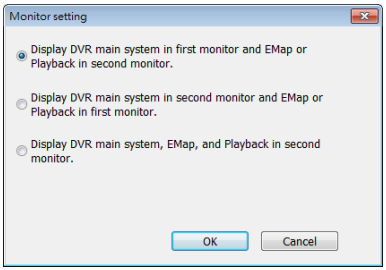
- **Screen Saver**
  Set a period time to enter screen saver mode when system idle.
- **Leave the system without asking user name and password**
  Don't need to enter password when close/exit NVR program.
- **Resequence channels when autoscan**
  The NVR system will re-arrange the channels order if some of channel is disable when auto scan is enabled. For example, CH 1 and 3 is disable, the channel will display in order of CH2,4,5,6,7~16. The CH1 and 3 won't be shown on screen when auto scan is enabled.
- **Remember playback display mode**
  To memorize the last playback status. The NVR system will memorize the playback status from last time that user has selected or setup for next time playback.
- **Enhance IP camera performance in TV out**
  Mark to improve the IP camera video preview smoother on TV output.
- **Auto Scan Period**
  Set the time gap of the Auto Scan function from 3 to 10 seconds. This automatically switches to the next video in cycle depending on the set time gap.
- **Playback Mode**
  Select the mode of playback the video.
  - ✓ **Select date and time:** Select the date and time which user wants to playback.

- ✓ **Play the last file:** Automatically playback the video from the last hour
- ✓ **Instant Playback:** Automatically playback the video which has just recorded. To set the instant playback time period, fill in the time in second at **Set Instant Playback's Play Time** column.

- **Date Format**
  Select the date format which wants to display in **Select date and time** playback mode

(8) Dual Monitor

Enable/disable dual monitor display. Click **Setting** to select display order of Preview (main system), Playback, and EMap.



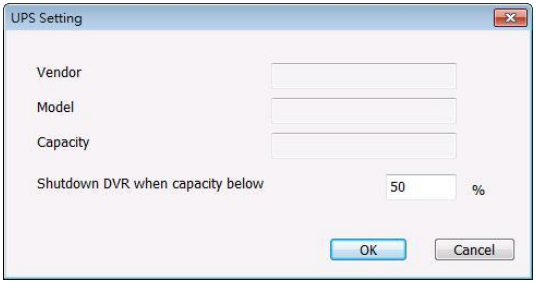
(9) POS

Set from which camera screen to display the data from the POS equipment. Click **Setting**, to set the POS Console Setting. (see also Chapter 3.1.1)

(10)UPS (Uninterruptible Power Supply)

Protect the system from damaging, such as power surges or brownouts. This automatically gives time to close the NVR properly when the battery backup power has reached the **Shutdown when capacity below** percentage level setting. The UPS device must be connected to your computer (refer to your UPS user's guide).

The UPS application must meet Windows XP and Windows 7 system requirements.



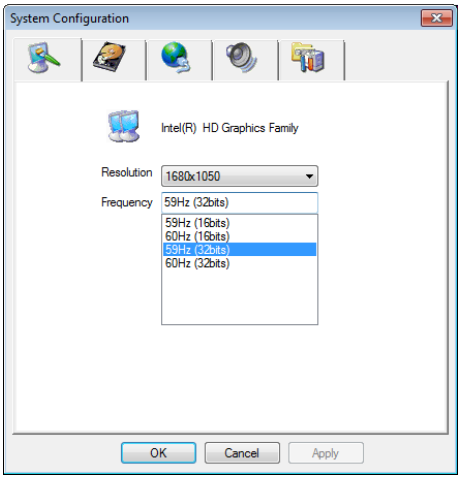
(11) System Configuration

The System Configuration function doesn't support on **Windows 7**.

To configure the NVR system date, time and IP address.

Display Setting

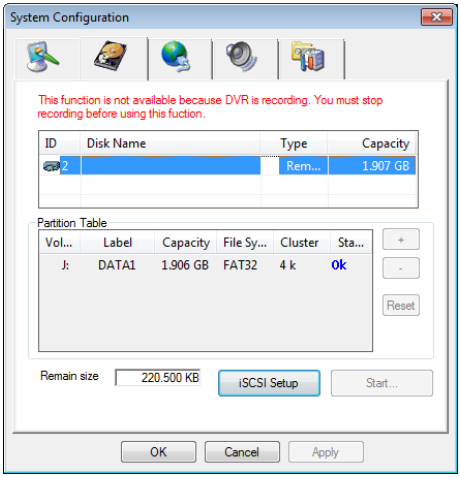
To adjust resolution of display.



HDD Management

To manage and format the hard disk is installed inside the NVR system. The NVR system can format the HDD that is the first time install on NVR system. The NVR system supports iSCSI hard disk.

- Please stop recoding before formatting HDD.
- The hard disk has been added into storage path that is not able to re-format and partition.

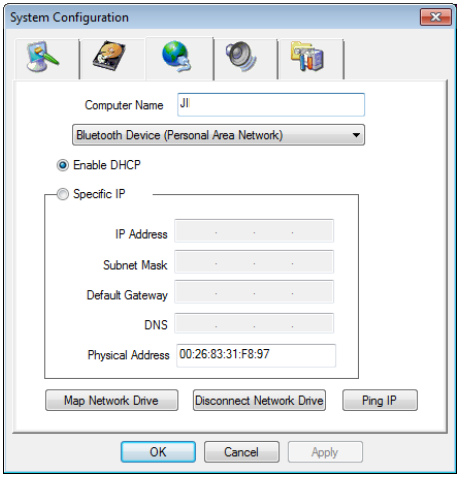


To format and partition hard disk:

1. Click **+** button to add the selected hard disk into **Partition Table** section.
2. User can adjust the capacity of partition by clicking **Capacity** column and enter the capacity. If user doesn't want to divide hard disk into several partitions, and then, just leave the capacity without change.
3. The partition can be named by clicking on **Label** column and enter the name.
4. To create more than one partition, do the steps 1 and 2 again.
5. When all the partition has been added, click **Start** to format all partitions.
6. When the formatting complete, the each partition status will change to **OK**.
7. Click **OK** to exit when formatting is completed.
8. Now, user can assign formatted hard disk or partition as a storage path(see also Chapter 3.1 System setting(1)Storage Path)

Network Setting

To configure the network setting (IP address, subnet, DNS, and son on…) of the system.

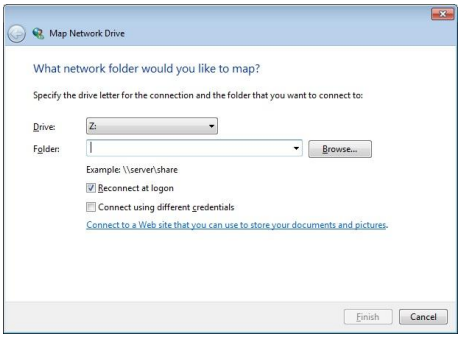


- **Obtain an IP automatically (DHCP):** To use DHCP server assigning NVR server a IP address.
- **Using the following IP address:** Assign a fixed IP address for NVR server
  - **IP ADDRESS:** Assign a constant IP address which a real IP addresses give from ISP to NVR system.

Do Not assign the NVR to 1.0.0.0 network segment. It will cause the NVR cannot access to Internet due to the un-recognize to 1.0.0.0 IP segment.

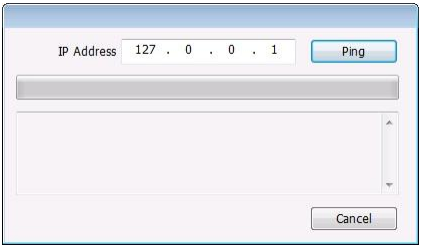
  - **Mask:** It is a bitmask used to identify the sub network and how many bits provide room for host addresses. Enter the subnet mask of the IP address which user has assigned to NVR system.
  - **GATEWAY:** A network device act as a passageway to internet. Enter the network gateway IP address
  - **DNS:** Enter the IP address of DNS

- **Map Network Drive:** To add network storage, the Internet storage drive/folder must be mapped as Network Driver in NVR server. Follow the below steps to map the network drive.
  1. Click **Map Network Drive** button. In the **Map Network Drive** window, select the **Drive** and fill in the **IP address** and **file folder** of file server or NAS on your network in **Folder**.
  2. And then, click **Finish** to make the connection.



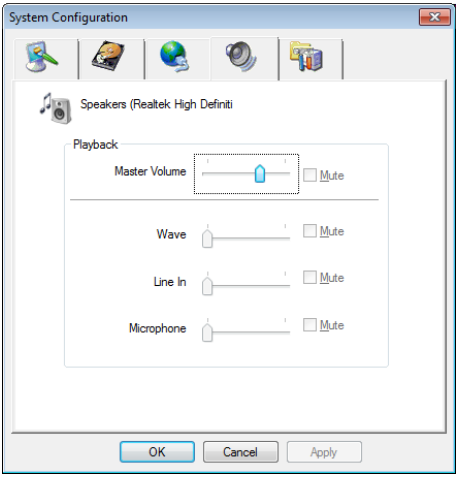
  3. After connection successful, user should see the network drive on the **Storage Path**.
  4. To disconnect the mapping network drive, click **Disconnect Network Drive**.

- **Ping IP:** Allow user to ping and trace the certain IP address of network/server device on the network.

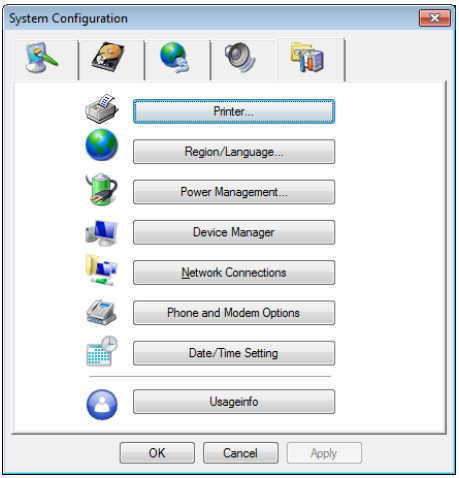


Audio Setting

To adjust audio volume of system.



Others

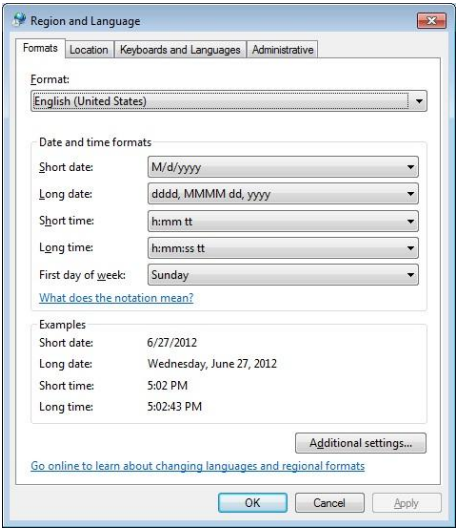


Printer Setting

Click **Add Printer** and following the wizard to install a printer.

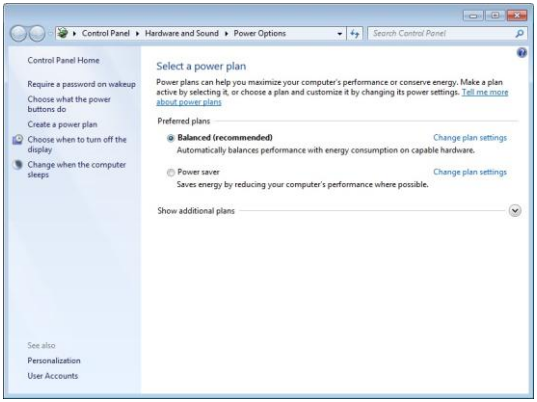
Regional/Language Setting

When NVR application is using different language of UI besides English, user can select the corresponding region and language in order to make UI display correctly.



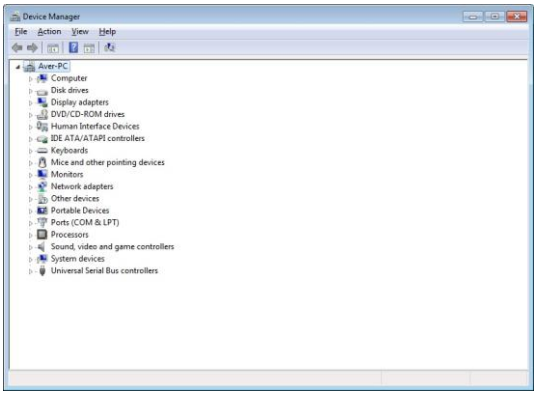
Power Management

To configure UPS. Click **Select…** to select the UPS that has connected with NVR system.



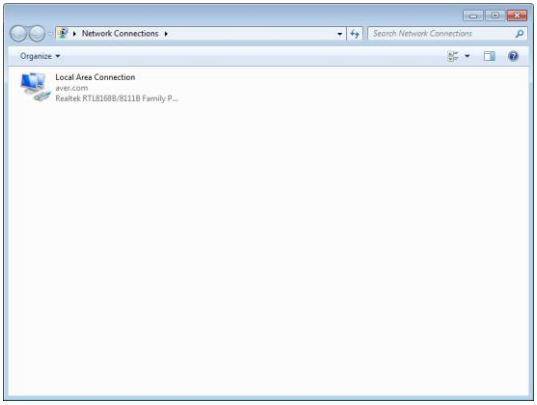
Device Management

To manage the NVR system devices.



Network Connection

To manage the connection of the network.

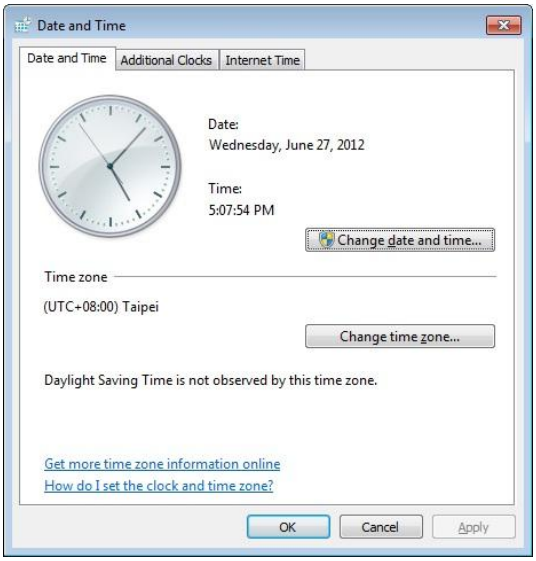


Phone and Modem options

To setup the modem dial-up settings.

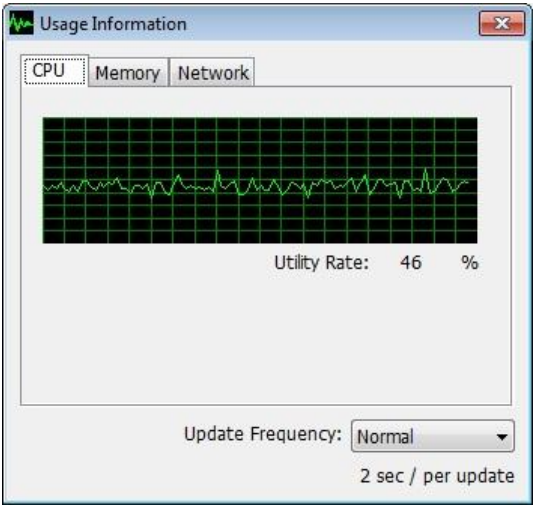
Date/Time Setting

1. Select the **Time Zone** of NVR server located
2. Select the **Month** and **Date**. Click arrow button can switch to different month.
3. Adjust the **Time** by click spin box arrow button.
4. Click **OK** to save the configuration.



Usageinfo

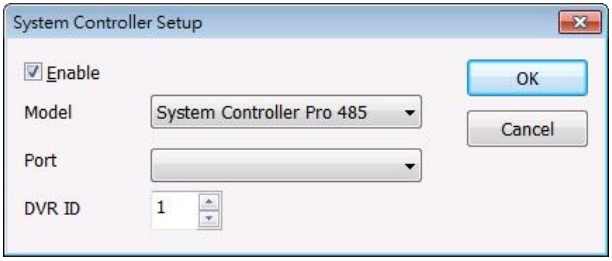
To view usage of the system CPU, memory, and network.



(12) System Controller Setup

To configure the parameters that is for communicating with the System Controller (an optional accessory). For operating of the System Controller, please refer to ***user manual of System Controller*** or download the manual from web site http://surveillance.aver.com/ .

- **Enable** – Mark the check box to enable the System Controller function.
- **Upgrade** – To update the firmware of the System Controller (see also Upgrading the Firmware of the System Controller).
- **Model** – Select model of the System Controller. If System Controller is connecting to NVR through the USB port, please select the **System Controller Pro** mode. If System Controller is connecting to NVR through the RS485 port, please select the **System Controller Pro 485** model.



- **Port** – Select the com port that is connected with the System Controller Pro.

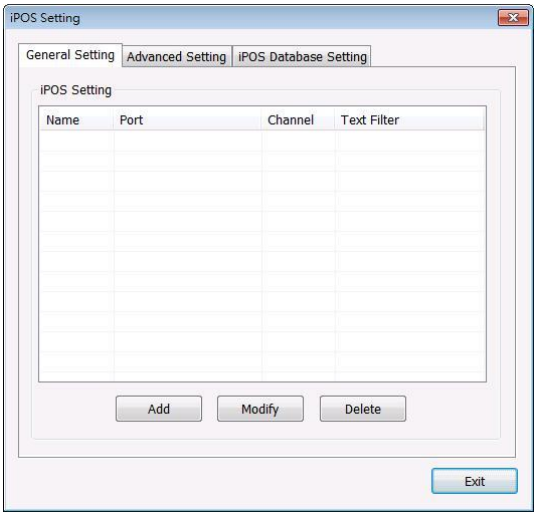
Only when System Controller is using RS485 port connect to NVR server, the port needs to be selected.

- **ID** – Set an ID for NVR server (0~99). This ID is a key for the System Controller to control the NVR server when there are more than one NVR servers are connecting with the System Controller through the RS485 port(see also Switch Control on Multiple DVR Servers).

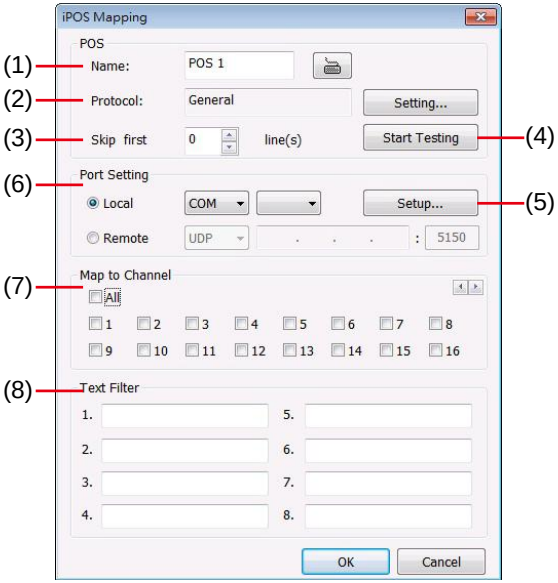
3.1.1 To Set the POS Setting

General Setting

1. In the System Setting dialog box, POS section, click **Setting**.
2. In the POS Console Setting dialog box, click **Add** to set a new POS setting, **Modify** to change the POS setting, and **Delete** to remove the selected POS setting. Click **OK** to save and close POS Console Setting.



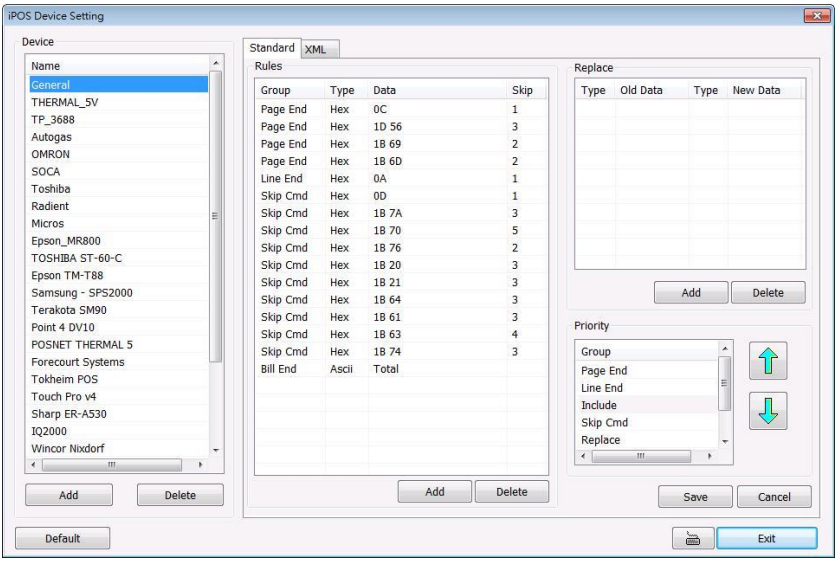
3. In the POS Mapping dialog box, click **OK** to accept the settings and **Cancel** to exit without saving the new setting.



(1) POS Name: Enter a name to identify the POS.
(2) Protocol: To select the protocol, click **Setting** button (see Setup POS Protocol)
(3) Skip first: Set the number of lines you want to be removed
(4) Start Testing: Click to test POS setting. You will see a test result on the right side of POS Mapping window.
(5) Setup…: Set the COM Properties. If you are not sure, please contact your POS service provider.
(6) Port Setting: Select the Local or Remote port to where it is connected.
Local - select the COM port number which is connected.
Remote – Use the UDP protocol for remote connection if POS system can broadcast to Internet. Enter the IP address of the remote station.
(7) Map to Channel: Select to which camera number to display the transaction text.
(8) Text Filter: Enter the word you want to be removed.

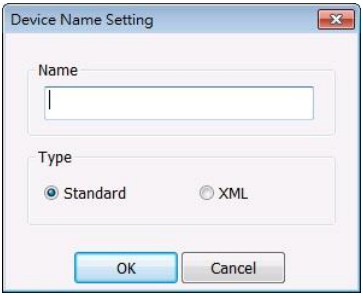
Setup POS Device

There are 4 default POS devices. If user uses the POS device beside defaults, user can add new POS device and rules. The POS device can be added up to 50 include defaults.



Setup Standard POS Device

■ **Add New POS Device**

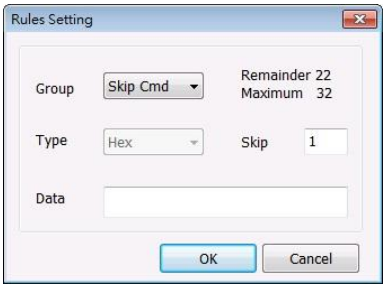


1. Click **Add**
2. Enter the POS device name in **Name** column
3. Select the **Type** as **Standard**
4. Click **OK** to save
5. To modify existing device, double click it.
6. Click **Default** can be reset back to original setting.

■ **Add Rules**

1. Select the POS device form device list
2. Click **Add** in Rules section
3. In Rule Setting window, select **Group**. Each group has a limited number of times ; please refer to the "**Maximum**" and "**Remainder**" information in Rule Setting window. The Line End, Page End, and Bill End group only can be set once.
   - **Line End:** set a rule to separate each line.
   - **Page End:** set a rule to switch page.
   - **Skip Cmd:** set a rule to discard a string or character.
   - **Include:** set a rule for a lime with a string or character to be displayed.
   - **Exclude:** set a rule for a line with a string or character to be concealed.
   - **Bill End:** set a rule to divide each transaction.
4. Select **Type** – Ascii or XML
5. Enter the string or character as the rule in **Data** column. The maximum length is 31 characters.
6. Click **OK**

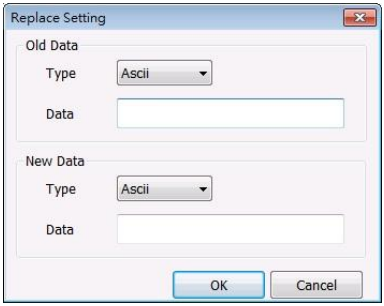
7. Click **Save**. The configuration will be lost without saving.
8. To modify existing replace rules, double click it.



■ **Character Replacement**

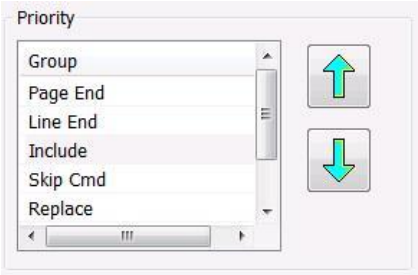
Set a rule to replace a character or word in POS data. The maximum replacement is 8.

1. Select a POS device from device list
2. Click **Add** in Replace section
3. **Old Data:** select the **Type**(Ascii or Hex) and enter word or character that wants to be replaced
4. **New Data:** select the **Type** (Ascii or Hex) and enter the word or character that will replace it in Old Data.
5. Click **OK**
6. Click **Save**. The configuration will be lost without saving.
7. To modify existing replace rules, double click it.



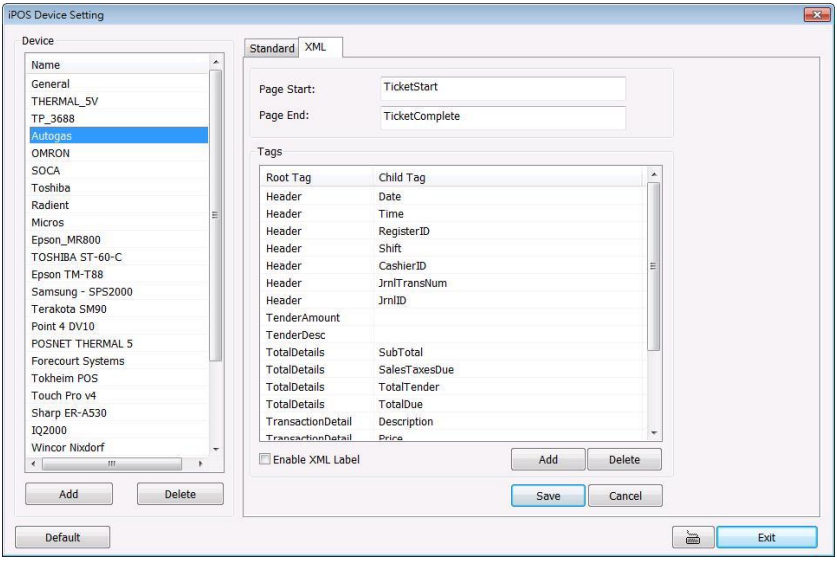
■ **Adjust Rule Priority**

User can set the priority of rule groups. Select the group and click up/down arrow button to move the priority level. The upper position, the priority is higher.

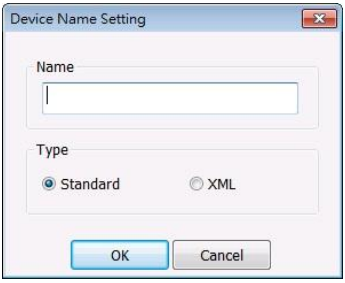


Setup XML POS Device

XML can only work with the POS data is transmitting in XML format.



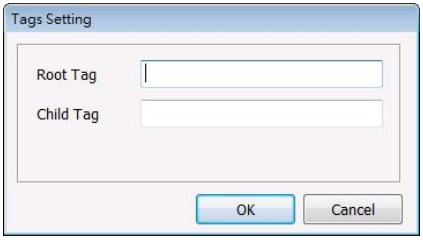
✓ **Device:** select or add a new device. Only device that supports XML can be configured in here. Click **Add** to add a device. Enter device name and select Type as **XML**. The POS device can be added up to 50 include defaults.



Page Start: Beginning of data for transaction

Page End: End of data for transaction

Tag: select a root tag and sub tag as a range for data transaction to NVR server. Click **Add** to set a tag. Click **Save**. The configuration will be lost without saving.



Please refer to the following example for more detail.

<TicketStart> → ***Page Start***
<Header> → ***Root tag***
<MessageVersion>1.0</MessageVersion>
<Date>20060317</Date>
<Time>164216</Time>
<RegisterID>3</RegisterID>
<Shift>4</Shift>
<CashierID>000000009</CashierID>
<JrnlTransNum>3</JrnlTransNum>
<JrnlID>0</JrnlID>
→ ***Sub tag***
</Header>
</TicketStart>
<Item>
<SaleTotals>
<Item>
<SaleTotals>
<Item>
<SaleTotals>
<TenderEvent>
<TicketComplete> → ***Page End***

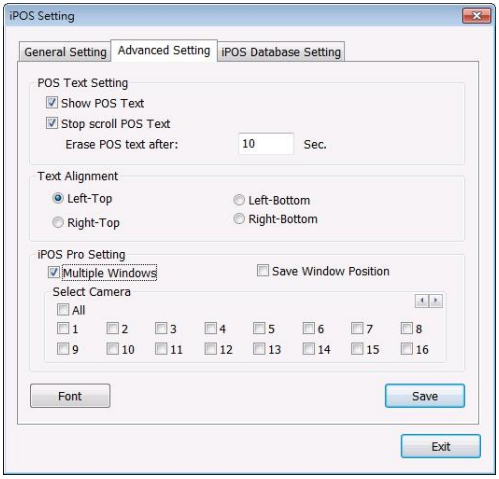
Advanced Setting

To setup POS text display position, text font and color.

1. In the System Setting dialog box, POS section, click **Setting** >> **Advanced Setting**
2. Mark **Show POS Text** to allow POS data to be display on surveillance screen.
3. If user doesn't want POS data to be scroll up, mark **Stop scroll POS Text** and enter the time to delete POS text at **Erase POS text after** column.
4. Select the POS data display position on surveillance screen – Left-Top, Left-Bottom, Right-Top, or Right-Bottom.
5. Mark **Multiple Window** to allow more than one iPOS live data window (see also iPOS Live in Preview mode) display on the preview screen mode.
6. Mark **Save Window Position** that iPOS live data window position (see also iPOS Live in Preview mode) will be saved as next time call out position when close.

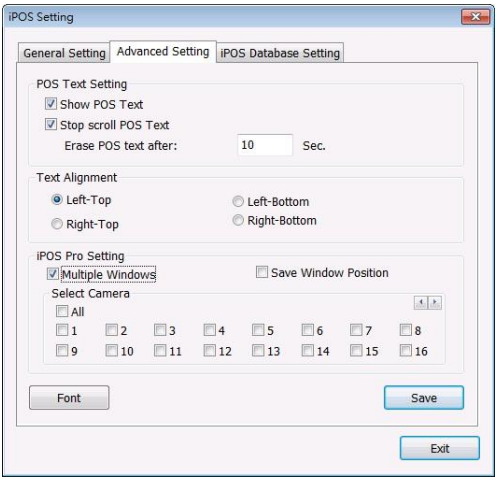
If user has changed dual monitor to single monitor, please un-selected "**Save Window Position**" function to prevent the iPOS live window stay in 2nd monitor screen when user call out iPOS live window.

7. Select the **Cameras** of iPOS live data that want to be display on Preview mode when the ***iPOS Live*** function has been enabled. To select all cameras, mark **All**.
8. To change the POS data font and color, click **Font**.
9. When it is done, click **Save** to complete the configuration.



POS Database Setting

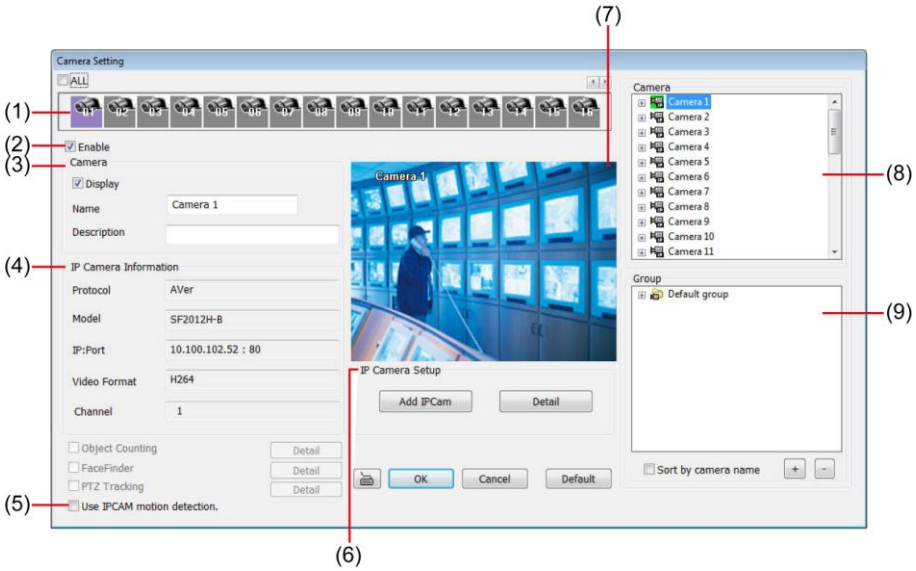
xUser can export the POS database to another save location or storage device. Click ... to change the save path. Mark **Remove POS data after** the POS data will be delete from NVR hard disk on the day that user has setup. Also, **mark Move to:** user can save the POS data to another folder on NVR when the POS data is removing. Click ... to set a storage path.



3.2 Camera Setting

In the Camera Setting dialog box, click **OK** to accept the new settings, click **Cancel** to exit without saving, and click **Default1/ Default2** to revert back to original factory setting.

Only support for AVer IP camera series.



(1) Camera Icons

Select the camera number you want to adjust the video setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns red when it is selected. The camera icon will be different that depends on the camera type user selected.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Camera

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Name**
  Change the camera name
- **Description**
  Add a short comment

(4) IP Camera Information

Display the camera channel information – Protocol, Model, IP/Port, Video Format, and Channel.

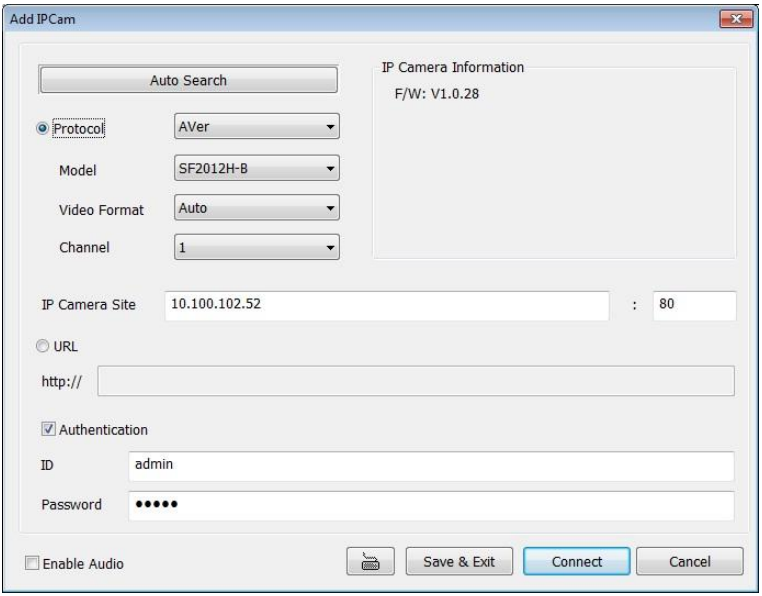
(5) Use IPCAM motion detection

Enable to use the motion detection function of IP camera if the IP camera has support motion detection and the motion recording will based on IP camera's motion detection setting.

(6) Input

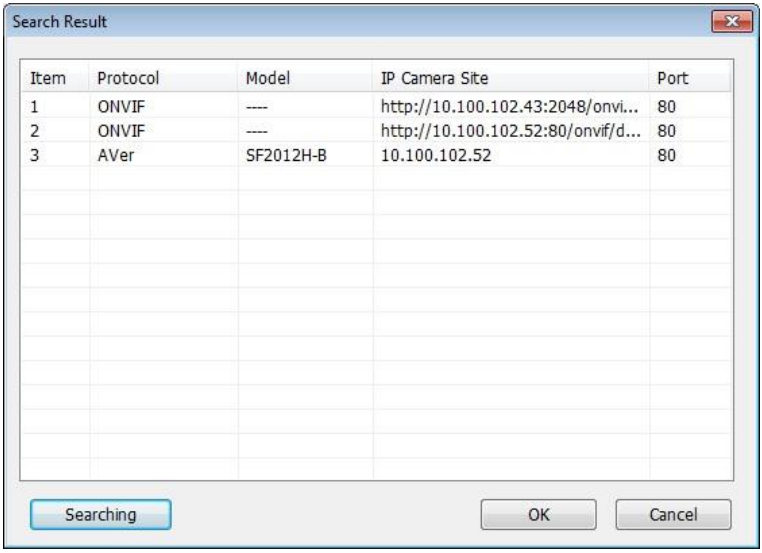
- **Add IPCam:** To connect an IP camera or Remote DVR. Click **Add IPCam** button and select the type of camera and click **OK** to continue.

- **Add IP Camera:** In the Add IPCam window, select to connect using **Protocol** or **URL** and then enter the required info. If the IP camera IP address is available, enter the IP address at **IP Camera Site** column. If IP camera requires user identification, enable **Authentication** check box and enter **ID** and **Password**. To enable audio, click **Enable Audio** check box. If you are not sure of the Protocol or URL info, please refer to the IP camera manual or contact your IP camera local distributor. Click **Save & Exit** to save the setting and leave the setup window, but no connection with IP camera. To connect IP camera, click **Connect** button.

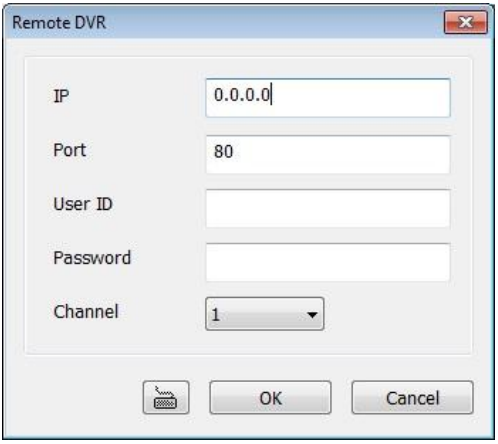


✧ **Auto Search:** User can click **Auto Search** to find the IP camera that can be detected by NVR system on the LAN network. **IP Camera Information** section displays the selected camera's firmware version.

Auto Search function will find all IP camera that can be detected by NVR system on you LAN network, but only AVer IP camera series allow to be connected to NVR system.

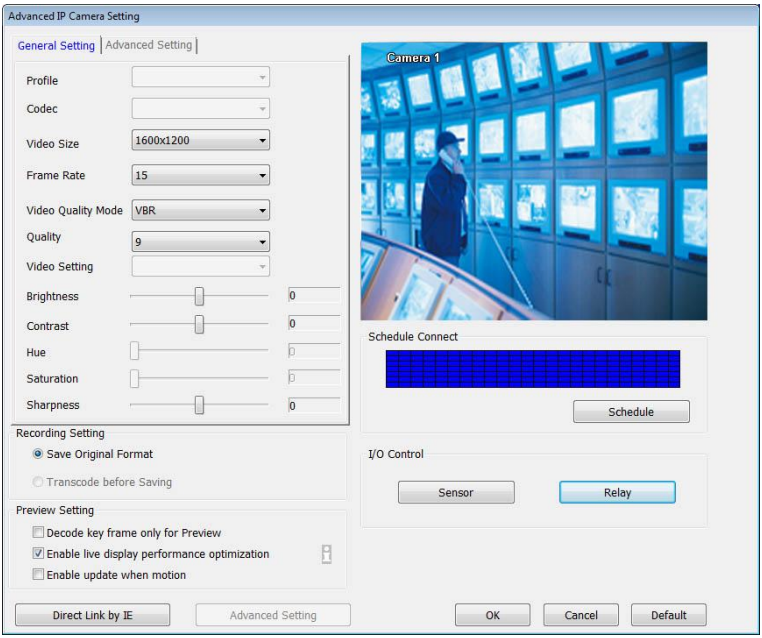


- **Add Remote DVR:** After select camera type as Remote DVR, click **Add IPCam** button to make a connection to remote DVR/NVR server. In Remote DVR window, enter the **IP**, **Port**, **User I**D, **Password** and select the **Channel** of remote DVR, then, click OK to make a connection.



- Detail Setting: In Camera Setting interface, click **Detail** to configure more parameters of the IP camera. Click **OK** to save the configuration and exit the setup window. To reset the configuration back to factory value, click **Default**.

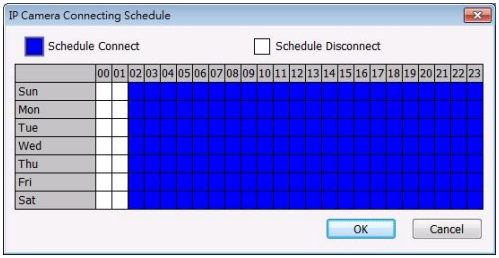
Detail setting only available for IP camera.



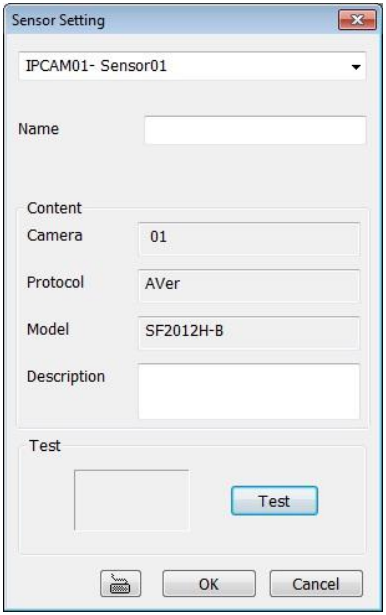
User can select **Video size**, **Frame rate**, **Video Quality Mode** and **Quality** of camera. And scroll the bar to adjust the **Brightness**, **Contrast**, and **Sharpness** of the camera.

- **Recording Setting**
  - **Save Original Format:** Save the video that is compressed by IP camera's compress mode.
  - **Transcode by MPEG4 Encoder:** NVR system is decoding the video and compress video again by using MPEG4 encoder.
- **Preview Setting:** preview setting will relate to the **Save Original Format**.
  - **Decode key frame for Preview:** When previewing video, NVR system only shows key frame and one frame per second.
  - **Enable live display performance optimization:** The live video performance will be optimized while display.
  - **Enable update when motion:** The video will update only when compare the key frame has motion found, and then, the video will be displayed.
- **Schedule Connect**

  User can select a certain date and time to connect with IP camera. The blue block means connect with IP camera and the white block means disconnect with IP camera. Select the connection status (blue or white) and click the date and time block to set the connection schedule.

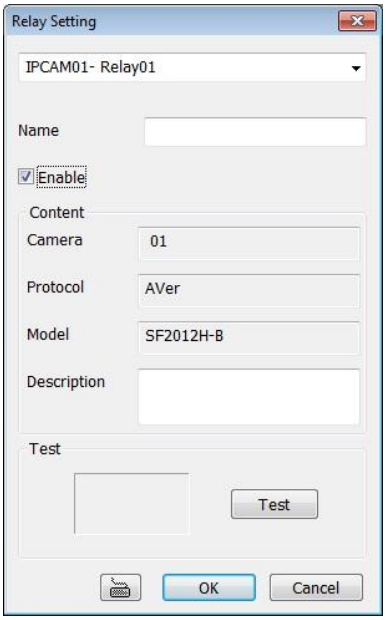


- **I/O Control:** To setup the sensor and relay devices that is installed on IP camera.
  - ✓ **Sensor Setting:** To setup sensor that is embedded on the camera.
  1. Click the drop-down list and select the sensor ID number.
  2. Enter sensor name in **Name** column
  3. The system automatically detects the camera and input relates information. In the Content section, enter sensor description.
  4. In the test section, click **Test** to check the sensor status. **Red** is high and **Green** is low.
  5. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.



✓ **Relay Setting:** To setup relay device that is embedded on the camera.

1. Click the drop-down list and select the relay ID number.
2. Enter relay name in **Name** column
3. The NVR system automatically detects the camera and input relates information. In the Content section, enter relay description.
4. In the test section, click **Test** to trigger relay. **Red** is high and **Green** is low.
5. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.



- **Direct Link by IE:** Using IE browser to connect to camera and view the real time video. Click **Direct Link by IE**，the IE browser will pop up and connect to camera. The video viewing interface will be varied by different brand of camera.

(7) Video Screen

Display the video of the selected camera.

(8) Camera list

List all available cameras for grouping. User can drag the camera to **(7) Video screen** to view camera live video.

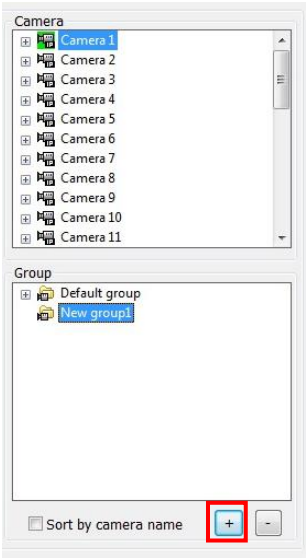
(9) Group

User can create several camera groups for managing purpose. All cameras can be group into several different groups (see also Chapter 3.2.1).

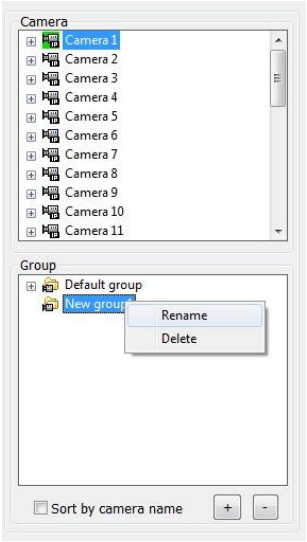
3.2.1 Create a Camera Group

Follow the below steps to create a camera group. The maximum of group number is 64. The default group can be deleted and modified.

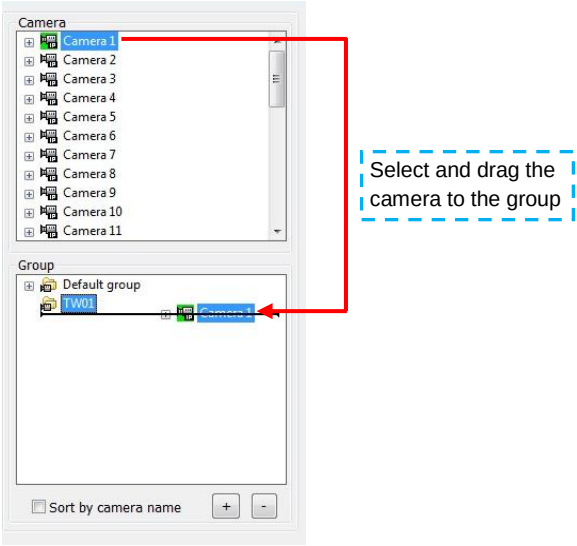
1. Click [+] to add a new group.



2. Right-click on group to rename the group name.



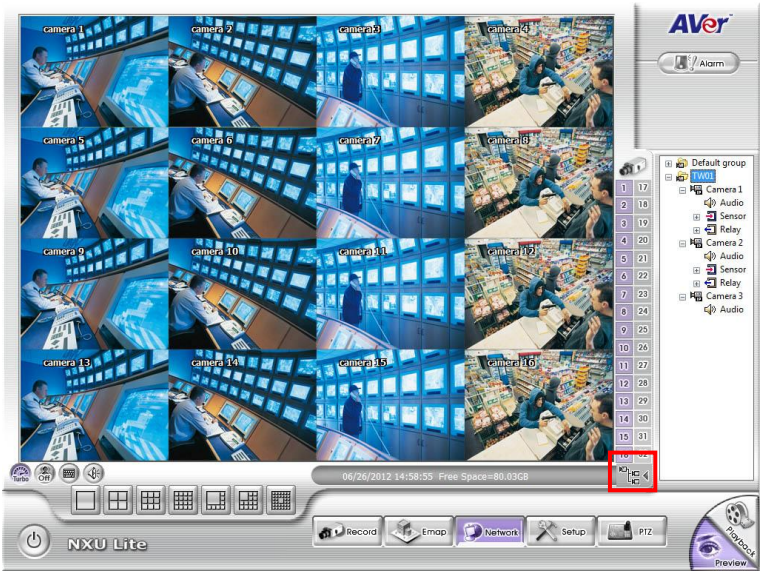
3. Drag the camera from Camera list section to the group.



4. Right-click the camera can rename, delete, display/no display video of camera, and enable/disable camera.
5. To add another group, do the step 1 to 4 again.
6. To delete the group, click [-] or right-click the group and select delete.
7. Mark **sort by camera nam**e to display group by name order.
8. Click **+** of the group to extend the group. Click **+** of the camera to view all devices that is connected with camera. Right-click the camera, user can change name of camera, disable/enable the camera, display/no display the video of the camera, or delete the camera from group from short-cut menu.

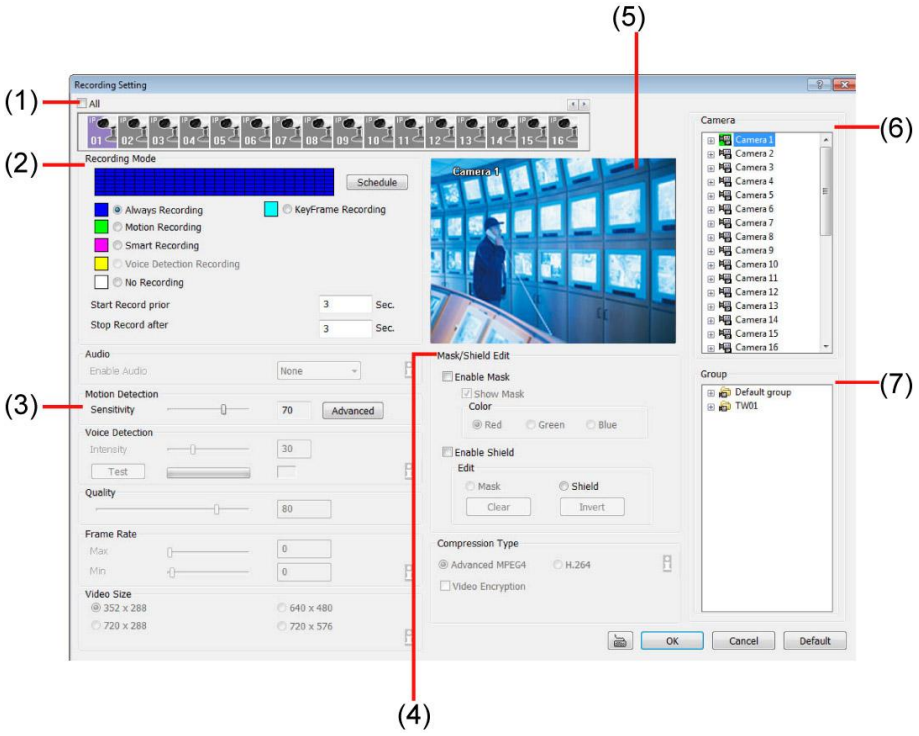
9. User can easy to view and manage the camera group in preview/advanced mode by click camera tree icon (see also Chapter 2.3(11) Camera Group Tree). From camera group tree, user can enable/disable, display/un-display, and rename the camera and enable/disable the audio of the camera.

To manage the camera group tree in preview/advanced mode, user need to be enabled the **Group Tree Menu** control right in account setting(see also Chapter 3.9 User Setting)



3.3 Recording Setting

In the Recording dialog box, click **OK** to accept the new settings, click **Cancel** to exit without saving, and click **Default** to revert back to original factory setting.

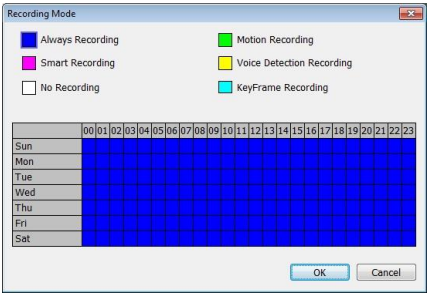


(1) Camera Icons

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns red when it is selected. The camera icon will be different that depends on the camera type.

(2) Recording Mode

The horizontal blocks from 00 to 23 represent the time in 24-hour clock and the vertical block 1 to 7 represent the day in the week block (Sunday to Saturday). To record in full 24 hours and 7 days a week, select the recording mode and click the ⊙ button. If you want to only record at a particular time or day, click **Schedule** button and select the **Recording Mode** , and then click on the time or day blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen.



The recording modes are listed below:

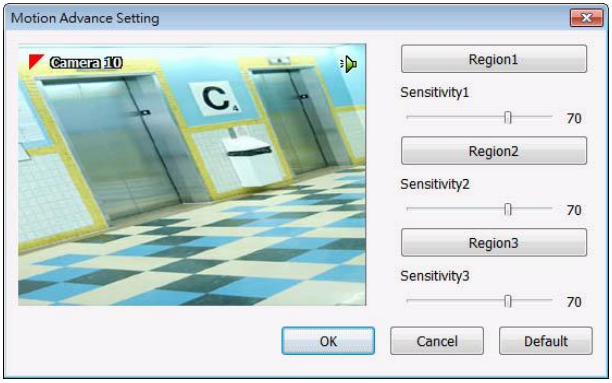
- **Always Recording**
  Record the video from the selected camera and save it to the designated storage path (see also Chapter 3.1 #1).
- **KeyFrame Recording**
  Only record one frame per second.
- **Motion Recording**
  Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and **Stop Record After** settings.

The NVR system only record in key frame for pre-recording.

- **Smart Recording**
  Automatically switch to recorded at the maximum frame rate setting once a motion is detected and if there is no motion, it records at the minimum frame rate setting.
- **Voice Detecting Recording**
  NVR system will record when the voice exceeds the intensity value in **Voice Detection** setting.
- **No Recording**
  The system won't do any recording.

(3) Motion Detection

Adjust the sensitivity of the motion detector. The higher the value, the finer the sensitivity is detected. When it detects a motion, a green triangle mark would appear at the upper left corner of the screen. Click **Advanced** button to select the area for motion detection. Click **Region 1/2/3** button, and then, click-and-drag an area on camera screen for motion detect. To adjust motion detect sensitive, scroll the **Sensitivity 1/2/3** bar. Click **OK** to save and exit the setting window. To reset all setting, click **Default**.



(4) Mask/Shield Edit

Mask, mark an area on the screen to disregards the motion in the marked area and to only monitor outside the marked area. As for the Shield, it covers an area on the screen and the covered area would not be visible on the screen and recorded.

■ **To Mask/Shield an area on the screen**

1. In the Mask/Shield Edit section, activate the **Enable Mask**/**Enable Shield** check box.
2. In the Edit section, select between Mask or Shield and click the ⊙ button.
3. Click and drag a frame on the **(5) Video Screen** to create Mask or Shield area.

■ **To show and change the color of the Mask**

1. Enable the Show Mask check box.
2. In the Color section, select the color and click ⊙button.

(5) Video Screen

Display the video of the selected camera.

(6) Camera

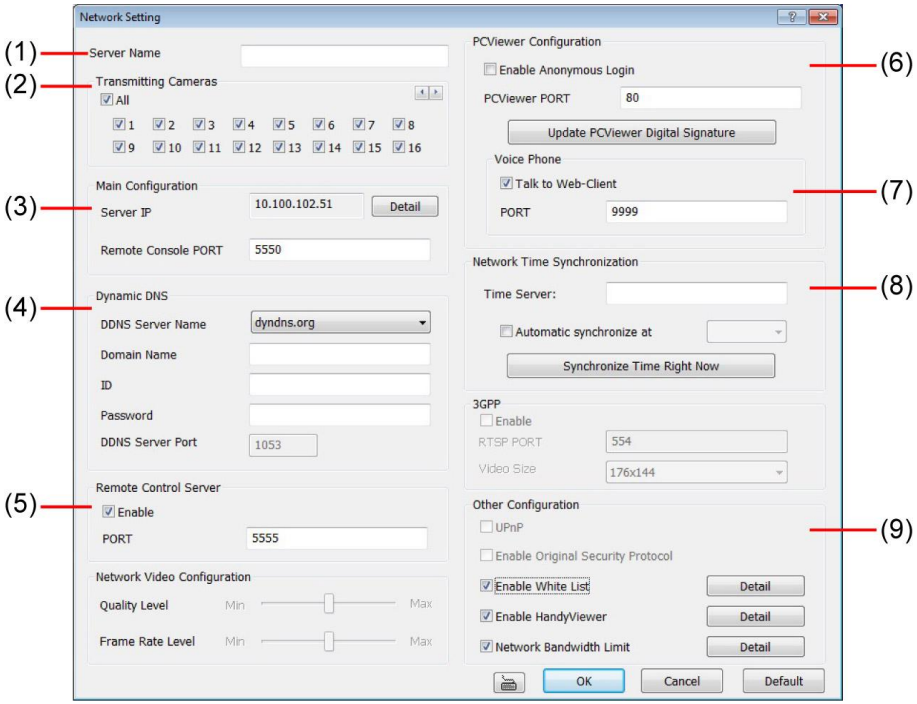
Click to view the camera live video on **(16) Video Screen**.

(7) Group

Click to view the camera group that user has been setup in **Camera setup (**see also Chapter 3.2.1).

3.4 Network Setting

In the Network Setting dialog box, click **OK** to accept the new settings, click **Cancel** to exit without saving, and click **Default** to revert back to original factory setting. For the network service ports that use by NVR server, please see Appendix C.



(1) Server Name

Assign a name for the NVR unit. Alphabet letters and numbers only.

(2) Transmitting Cameras

Select and click on the camera number in the Transmitting Camera section you want to make it accessible via internet using PCViewer, Remote Console, PDAViewer and HandViewer (still image). To select all the cameras, enable the **ALL** check box.

(3) Main Configuration

Set the Server IP and Remote Console Port number. The system will automatically detect your Server IP address. You need this when accessing NVR server from the remote location via internet. To change the IP address of NVR server, click **Detail** button.

(4) Dynamic DNS (Domain Name System)

Use this service if the IP address changes each time when you connect to internet. Enter the **Domain Name** and **Password** that user has registered, select the **DDNS Server Name** which the one that user had registered the domain name, and enters the **DDNS Server Port** that is a service port for connecting with the DDNS server.

To use this feature, please go to **http://ddns.avers.com.tw** or **http://www.dyndns.com** (see also Appendix A) to register your own domain name.

(5) Remote Control Server

Enable/disable remote control from remote application (ex. CM3000). Enter the remote accessing port in **Port** column. The default value is 5555.

User also can manually run this function. To run, click **Start** > **Programs** > **DVR** > **Remote Control Server**. The remote control server icon appears on the taskbar when the remote control server is enabled. (also see Chapter 7)

(6) PCViewer Configuration

Activate **Enable Anonymous Login** to remotely access the NVR server without the need of password

(8) Voice Phone

The **Talk to Web-Client** is to use the 2-Way Talk feature that allows the client and server to talk via internet using microphone. Make sure both microphone and speakers work before using this feature. If the **Talk to Web-Client** is disabled, the person in the NVR server side can only hear the voice from the client side that is when the WebCam 2-Way Talk button is activated. (see also Chapter 5.1.1 #11).

Make sure that your Digital Signature is updated yearly; else you won't be able to access the NVR server from the PCViewer. To update/download your PCViewer Digital Signature, click **Update WebViewer Digital Signature**. Make sure your PC is connected to internet.

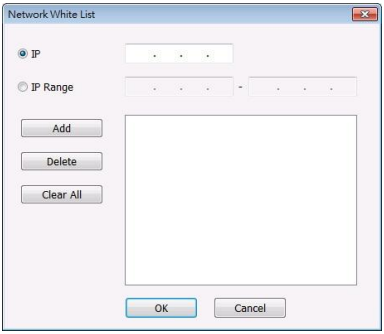
(8) Network Time Synchronization

Adjust the NVR system time same as network time server. Fill in the **Time Server** IP address or domain name. Select **Automatic Synchronize** time to set automatic synchronize time on a daily basis. Or, user can click **Synchronize Time Right Now** to adjust time right away.

(9) Other Configuration

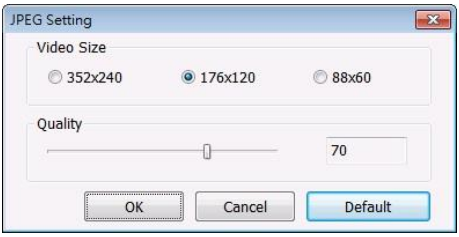
- **Enable White List**

  An access permit list for the remote accessing of NVR server. Enter the IP address and click **Add**. Or, enter a range of IP address and click **Add**. To delete the IP from the list, select the IP and click **Delete** button. To reset the input, click **Clear** button.

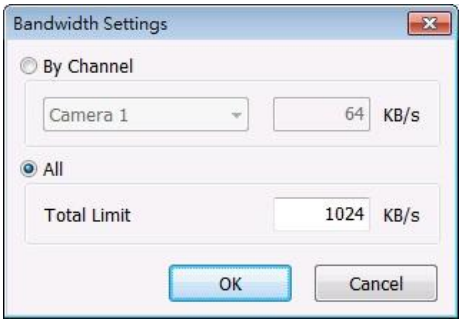


- **Enable HandyViewer**

  Enable remote users to use a PDA or a mobile phone to access NVR server and select the video size and quality. (See also Chapter 5.5 and Chapter 5.6)

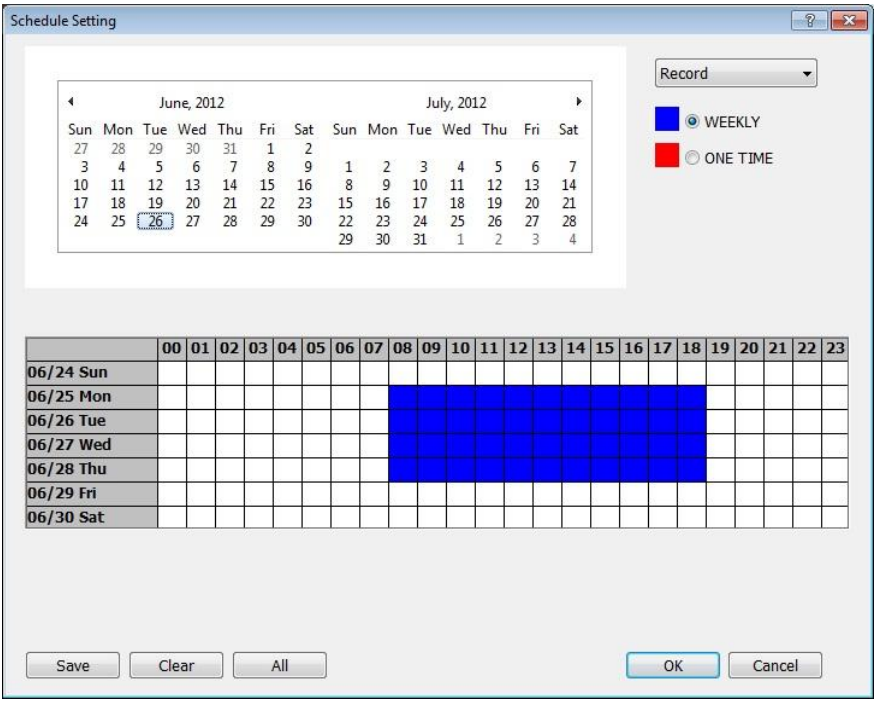


- **Network Bandwidth Limit**
  - **By Channel:** Set the network bandwidth by each channel.
  - **All:** Set the total network bandwidth consumption limit.



3.5 Schedule Setting

Schedule to record, backup, enable network, reboot and disable alarm of all the cameras either weekly or one time. The number from 00 to 23 represent the time in 24-hour clock. The left most column display the days in a week.



To Set the Schedule Setting:

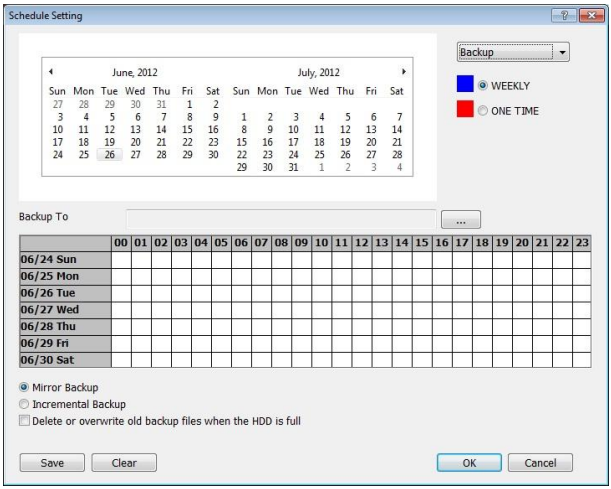
1. Select the date in the calendar. Use ◂ and ▸ buttons to shift the calendar to the left or right.
2. Select the condition you want to schedule in the drop down list.

- **Record**
  Activate all the cameras to start video recording at the set time based on the Recording setting (see also Chapter 3.3).

- **Backup**
  To assign backup path, click ….
  - ✓ **Mirror Backup:** Save a copy of all the data at the set time and specified backup path.
  - ✓ **Incremental Backup:** Only backup the data that are not yet included in the archive from last time.

✓ **Delete or overwrite old backup file when the HDD is full:** The NVR system will automatically erase the old backup data when the hard disk is full.

Make sure the backup folder and storage folder are not on the same drive.



- **Enable Network**
  Activate NVR remote system to access at the set time. After the appointed time, the Network function will be disabled. If the Network function is already enabled, the Network function will not be disabled when the appointed time has ended.
- **Reboot**
  Restart the PC at the appointed time.

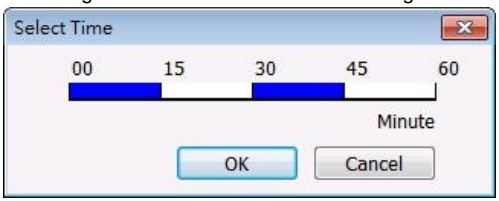
Make sure the Windows operating system is set **NOT** to require you to login user name and password. This way the system will be able to run NVR program.

- **Disable Alarm**
  Deactivate the alarm at the set time temporarily.
- **Turn on Relay #**
  Active the Relay at the set time. If there are no Relays are connected, Turn on Relay # function will not display in drag down list. The Relay number will depend on how many Relays are connected.

3. Specify to either schedule it weekly or one time. Click ⊙ to make a selection.
4. Click on the blocks to set the schedule (see also Chapter 3.5.1). Or click **All** to select all. To store the setting, click **Save**. To remove the settings, click **Clear**.
5. To end Schedule Setting, click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

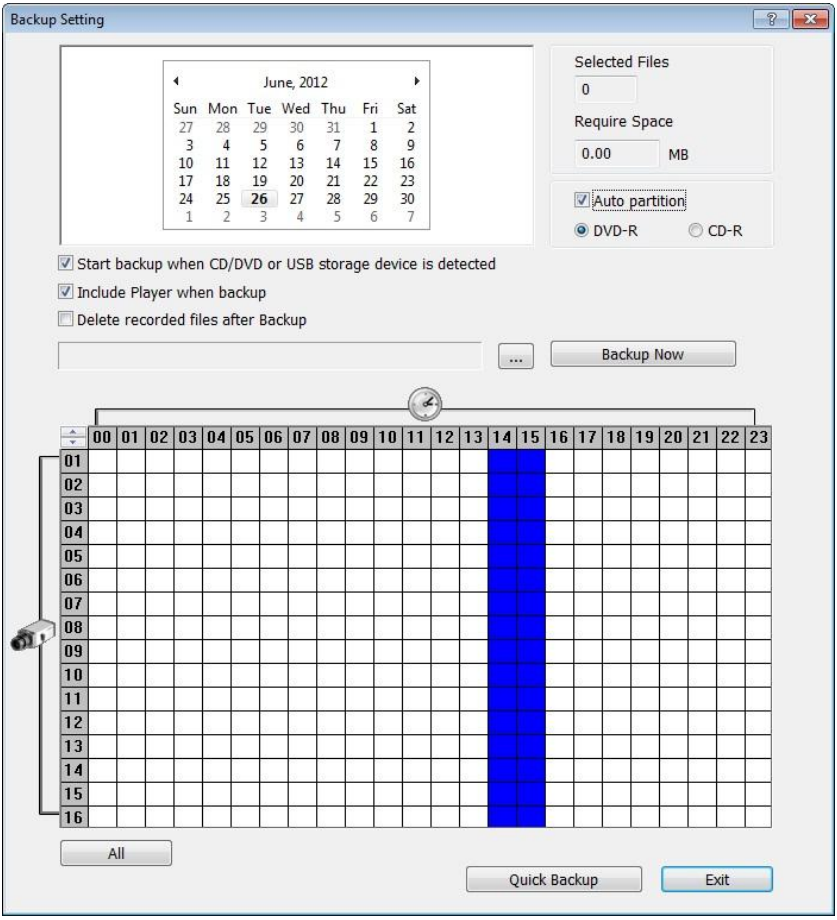
3.5.1 To set schedule at a specific portion of time in that hour

1. **Right click** the colored blocks.
2. In the Select time dialog box, click to enable or disable the portion you want to set.
3. Click **OK** to accept the setting and **Cancel** to exit without saving the setting.



3.6 Backup Setting

In the Backup Setting dialog box, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera number. When you back up the file, you may find Qplayer application included in the backup folder (see also Chapter 4).



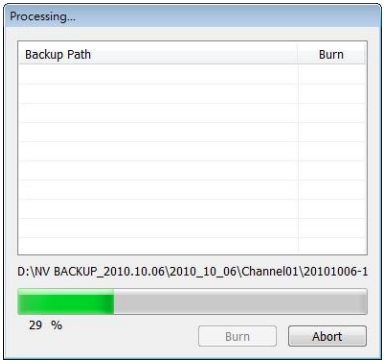
1. Select the date of the recorded file in the calendar you want to backup. Use ◄ and ► buttons to shift the calendar to the left or right.
2. In the table below, click on the blue block to select the recorded file or click camera (01~16) or time (00~23) to select the whole row or column. The blue block turns red when it is selected. The block that appears in white doesn't have data. If you want to set the specific time, right-click on the selected block. Then, set the time to start and end.

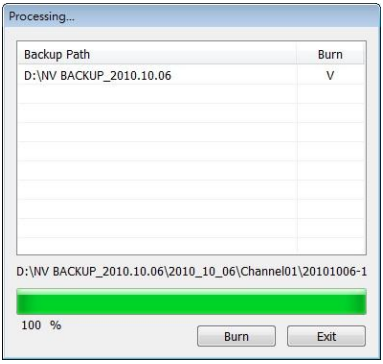
User can select different date to backup, but it can't over 3 different date.

3. Check the information beside the calendar.
   - ✓ **Selected Files:** Show the number of files selected.

- ✓ **Require Space:** Show the total size of the selected file

4. Enable **Auto partition** and select to divide the file size into DVD-R or CD-R. NVR automatically backup and divide the file sizes to facilitate burning into DVD or CD disc.
5. Enable **Start backup when CD/DVD or USB storage device is detected** that the Backup setting window will display on screen automatically when the NVR system detects CD/DVD-ROM disk or USB storage device. Right after user select the period of backup file, click Backup Now, and the NVR system will start to backup without confirmation.
6. Enable **Include player when backup** that will included a **Qplayer** program for playback backup file in backup folder when backup. Only administrator user has the authority to enable or disable this function.
7. If you do **NOT** want to keep the recorded file in the storage folder, enable **Delete files after Backup** check box.
8. Click ... to set the path on where to store the backup file.
9. Click Backup Now to start archiving the selected file.
10. In the Processing… dialog box, to stop archiving press **Abort**. When done, in the Backup Path list, shows the archived item. To burn the file in CD, you need to have NERO 6 or NERO 7 installed in your PC then select the item in the list and click **Burn**. Click **Exit** to end this procedure and burn it later.



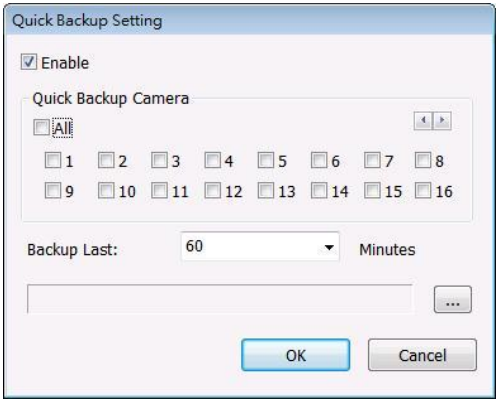


11. In CD/DVD Backup, enable/disable Delete file after burning check box to remove the archived file after burning. Click **Burn** to start and **Exit** to cancel this process.

3.6.1 Setup Quick Backup

Set a quick backup rule for user can pressing **Ctrl + B** to execute backup instantly.

1. Click **Quick Backup**
2. In Quick Backup Setting window, mark **Enable**
3. And then, select the channels that want to backup and click [...] to select the save path.
4. **Backup Last:** Set the backup time period. For example: time before 60 minutes means backup the recorded file from now backward 60 minutes. Present time is 13:00, the system will backup start from 12:00 to 13:00 when press quick backup button

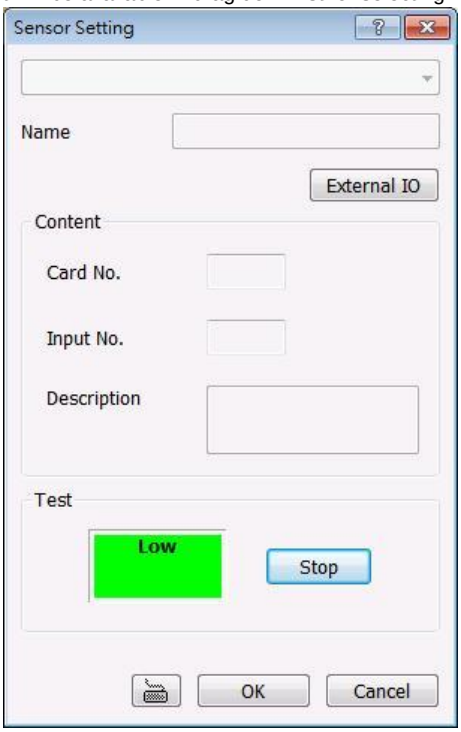


3.7 Sensor Setting

The I/O device must be installed to use this function. The NVR system also support external I/O box and user can install external sensors. For external sensor setting, please referring to the sensor vendor user's manual.

To Set the Sensor Setting:

1. Click the drop-down list and select the sensor ID number.
2. Enter sensor name.
3. The system automatically detects the card and input number. In the Content section, enter sensor description.
4. In the test section, click **Test** to check the sensor status. Red is high and Green is low.
5. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.
6. Click **External IO** to configure external I/O device if it is available (see also Chapter 3.8.1). When external I/O is set and it will be available in drag down list for selecting.

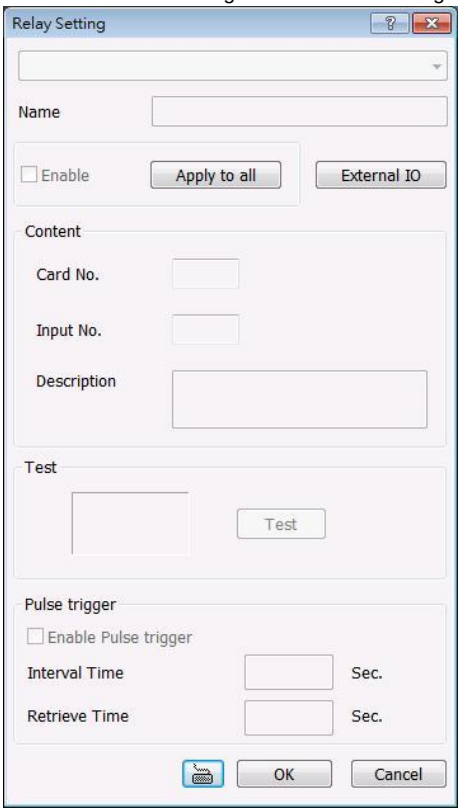


3.8 Relay Setting

The I/O device must be installed to use this function.

To set the Relay Setting:

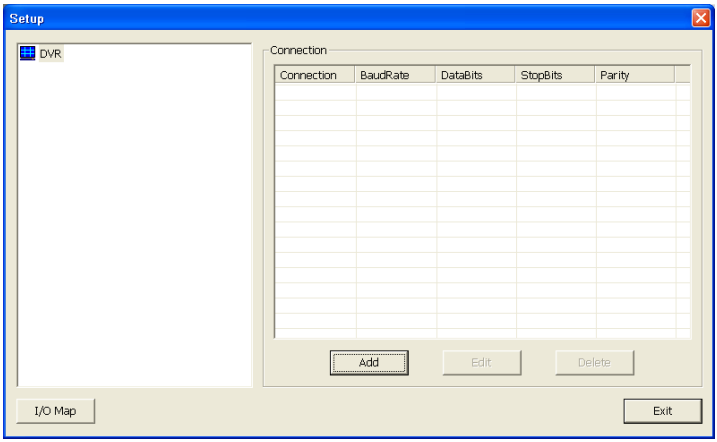
1. Click the drop-down list and select the relay ID number.
2. Enter relay name.
3. Mark **Enable** to enable the selected relay. If user wants to apply the setting to all relays, click **Apply to all** button after complete the setting of the relay.
4. The system automatically detects the card and input number. User can enter a short description for this relay in **Description** frame.
5. To set all relay devices for same setup setting, mark **Enable** and click **Apply all**.
6. Mark **Enable Pulse trigger** the relay will be triggered depends setting of **Interval Time** and **Retrieve Time**. **Interval Time** is a time gap for the relay will be triggered, for example: the relay will be triggered every 3 seconds if interval time is set to 3 seconds. **Retrieve Time** is the time that relay is staying in trigger status, for example: when relay has been triggered and it will continuous in trigger status for 2 second if retrieve time is set to 2 seconds.
7. In the test section, click **Test** to trigger relay. Red is high and Green is low.
8. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.
9. Click **External IO** to configure external I/O device if it is available (see also Chapter 3.8.1). When external I/O is set and it will be available in drag down list for selecting.



3.8.1 To Setup External I/O Box

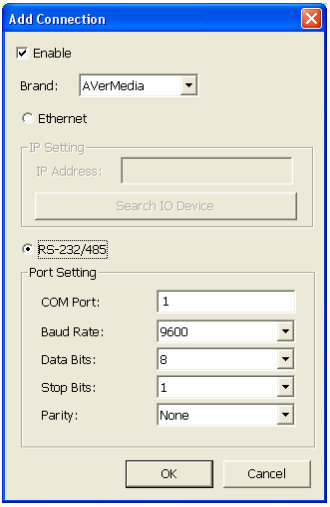
NVR system needs to purchase and install the E-I/O box in order to have the sensor and relay connection.

The NVR system can connect the external I/O box for extra of I/O devices installation.

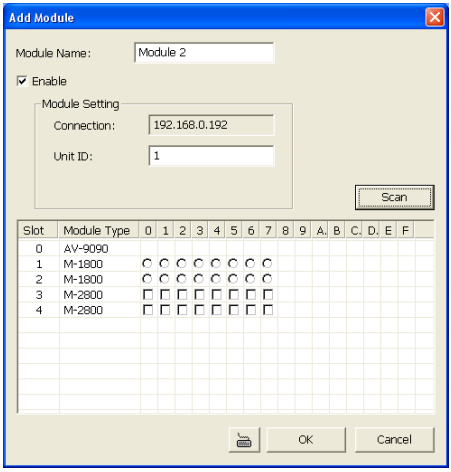


1. Click **Add**.
2. Mark **Enable** box to enable this external I/O box.
3. Select the Brand of external I/O box from drag down list.
4. Select the connection type – **Ethernet** or **RS-232**.
5. For Ethernet connection, enter **IP Address** of I/O device or click **Search IO Device** button to search any I/O device on LAN network.
6. For RS-232 connection, different brand of external I/O box may have different port parameters. Please refer to the external I/O box's user manual for port setting information. Using the default value if user uses External I/O box of AVer™.
7. Click **OK** to save the setting.

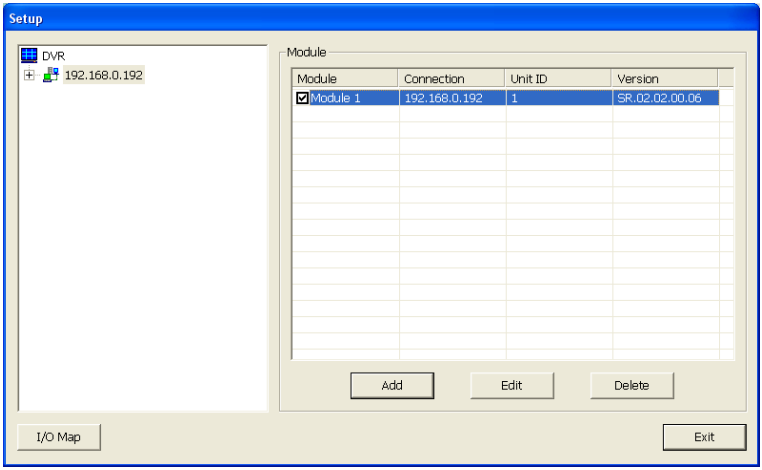
8. To add more than one external I/O box, click **Add** and follow the above steps.



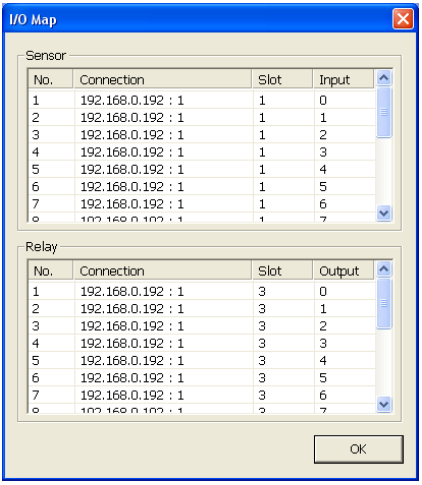
9. In External I/O box setup dialog, user will see all added External I/O. Click added External I/O box and click **Add** to scan the connected relays and sensors.
10. In **Add Module** window, click **Scan** to scan the connected relays and sensors on the External I/O box.
11. All connected relays and sensors will be listed. User can click radio button to control relays' status. And then, click **OK** to save the setting and click **Cancel** to exit and without saving.



12. All connected External I/O box and their modules will be listed as tree topology in External I/O Setup window.

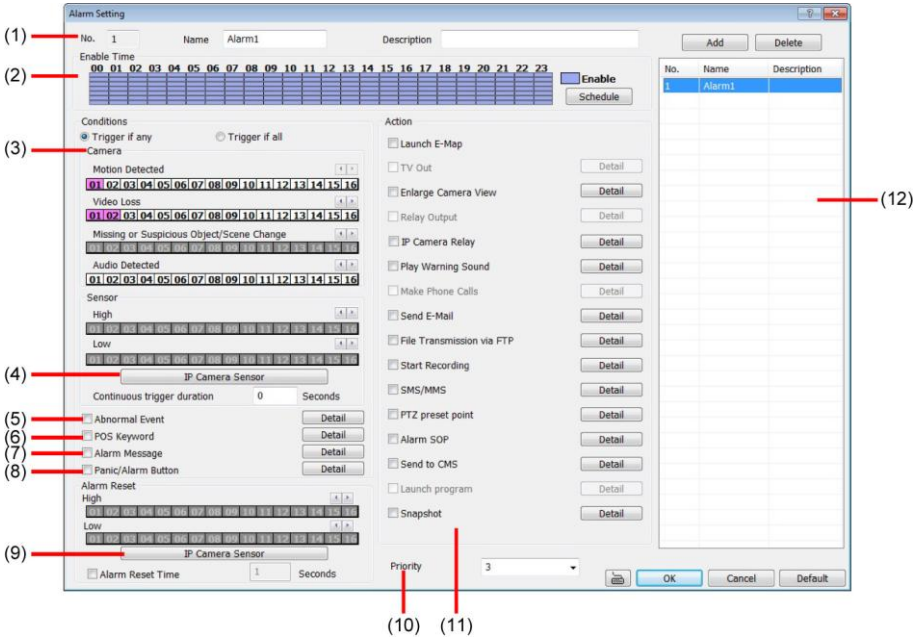


13. To view the all I/O devices information, click **I/O Map**.



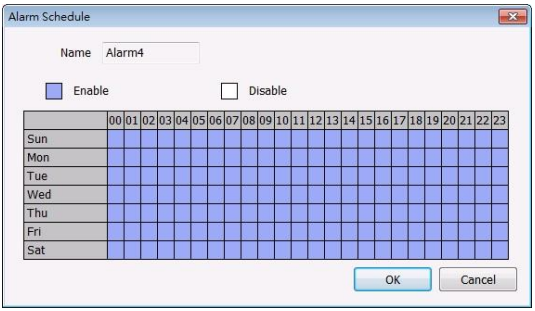
3.9 Alarm Setting

In the Alarm Setting dialog box, click **Add** to insert and set new alarm setting, click **Delete** to remove the selected alarm setting, click **OK** to exit and save the setting, **Cancel** to exit without saving, and **Default** to revert back to original factory setting.

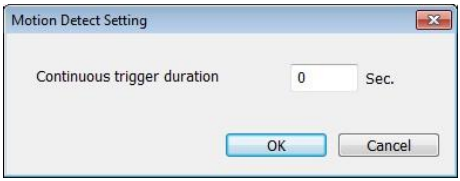


To set the Alarm Setting:

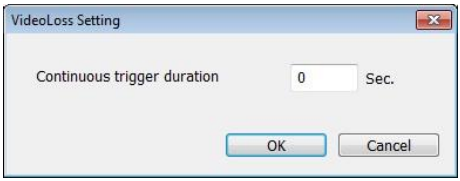
1. Click **Add** to insert and set a new alarm setting. Click the items in the **(12) Alarm Setting List**, if you want to modify the alarm setting.
2. In **(1) Alarm Setting number/Name/Description**, display the selected alarm setting number in the list below. Enter alarm name and description.
3. In **(2) Enable Time**, the number from 00 to 23 represent the time in 24-hour clock. Click **Schedule** to select the time and date that you want to activate or deactivate the alarm function. Select **Enable** or **Disable** and click the block that user want to activate or deactivate the alarm function.



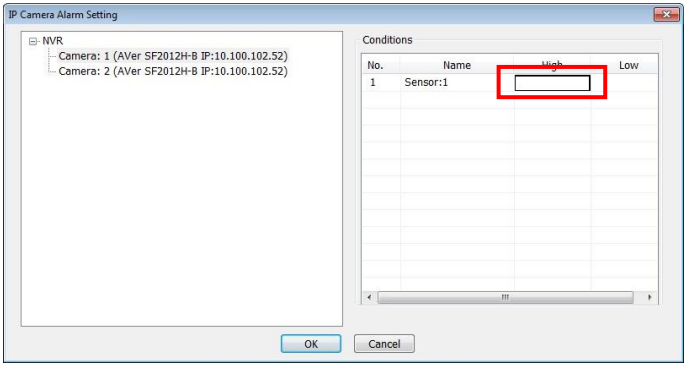
4. In **(3) Conditions**, you can set "**Trigger if any**" to activate if it falls to one of the conditions or "**Trigger if all**" to activate if it falls to all conditions.
   - **Motion Detected:** select and click on the camera number (01 to 16) to set the condition for the system to alarm. **Right-click** on the camera number to setup the system to send out the alarm when motion has been detected last the time that user has entered in **Continuous trigger duration**.



   - In **Video Loss**, click the camera number (01 to 16) to set the alarm condition when video is lost. **Right-click** on the camera number (01 to 16) to setup the system to send out the alarm when video has been lost to last the time that user has entered in **Continuous trigger duration**.

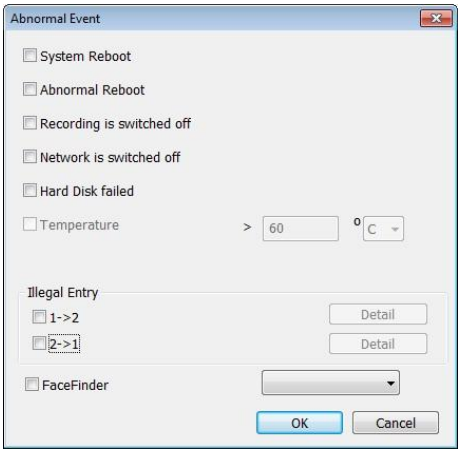


5. In **(4) IP Camera Sensor** to configure sensor status of IP camera. Click **High**/**Low** to set sensor status to high or low.



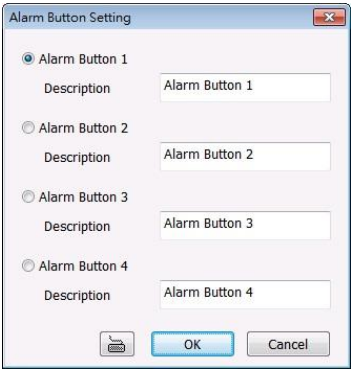
   - **Continue trigger duration:** Set a time period for system to send out the alarm when sensor has been trigger and stay in the same status for a period.

6. In **(5) Abnormal Event** to set the condition of the event for system to alarm.

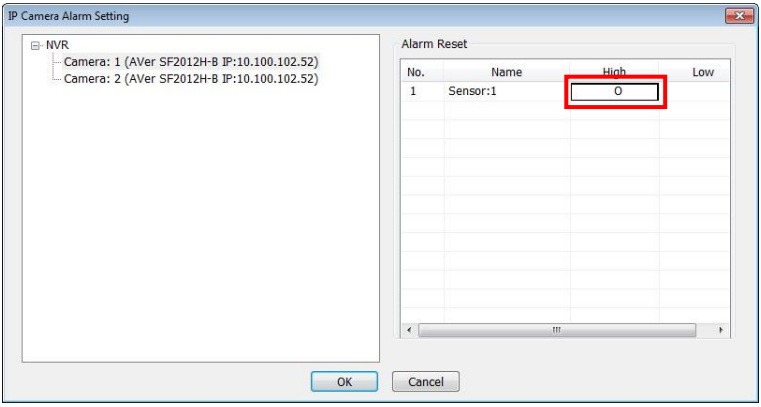


- **System Reboot:** when the NVR system reboot without abnormal condition, the system will send out the alarm message.
- **Abnormal Reboot:** when the NVR system reboot in irregular condition, the system will send out the alarm message.
- **Recording is switched off:** when the recording has been stopped, the system will send out the alarm message.
- **Network is switched off:** when the network connection of NVR system is lost, the system will send out the alarm message.
- **Hard Disk failed:** when the hard disk doesn't work normally, the system will send out the alarm message.

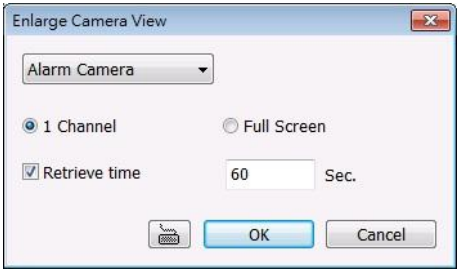
7. In **(6) POS Keyword**, set keyword to scan the data from the POS if it matches the keyword (see also Chapter 3.9.9).
8. In **(7) Alarm Message** to active with external alarm message by your own program. For the detail configuration, please contact the local reseller.
9. In **(8) Alarm Button** to active manual alarm function. To define alarm message of manually alarm trigger. Click **Alarm Button** and select the alarm button # and fill in the description of alarm button.



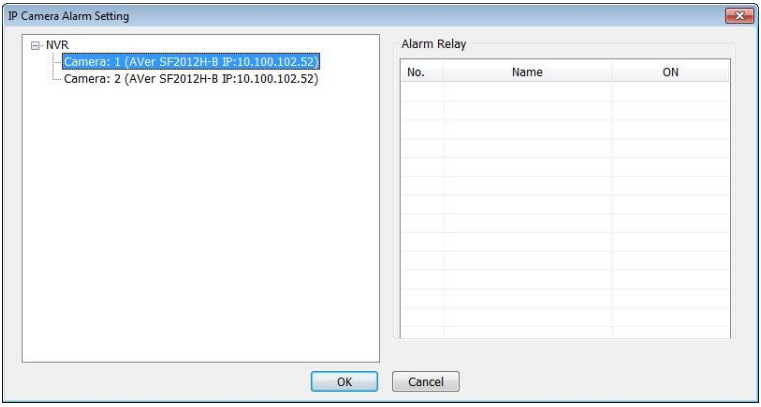
10. To set sensor status of IP camera, click **(9) IP Camera Sensor**. In IP Camera Alarm Setting window, click **High**/**Low** to set sensor status.



11. In **(10) Priority**, user can set the priority of this alarm. The priority of the alarm can be seen in CMS site (Central Management System).
12. In **(11) Action**, you may now set the alarm action for the system to perform when the alarm condition is activated.
    - **Launch Emap**
      Display mini Emap screen.
    - **Enlarge Camera View**
      Switch to only display video in Preview/Advanced mode from where the alarm is activated.
      a. Select the camera from drop down list to specify which camera video to be enlarged on screen when the alarm is triggered.
         - **Alarm Camera:** when a channel has an alarm occurred, and then, the channel video that has an alarm occurred will be enlarged on screen.
         - **Camera # (1~32):** the selected channel video that will be enlarged on screen when an alarm is activated.
      b. Select the display mode – **1 Channel** or **Full Screen**.
      c. **Retrieve time:** set the waiting duration before system switching back to original Preview mode. If the retrieve time is un-mark, the alarm video will keep enlarging until user switch back to Preview mode manually. The retrieve time range is 3~ 600 seconds.



- **IP Camera Relay**
  Set to enable/disable the relay operation when the alarm is activated.

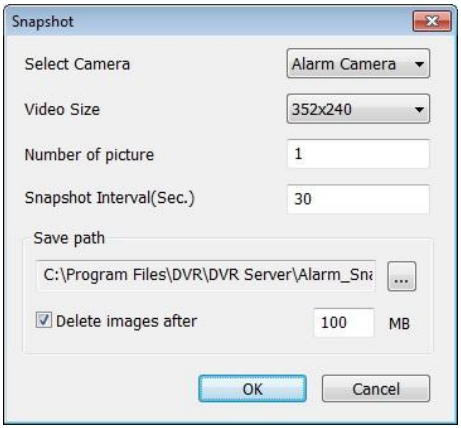


- **Play Warning Sound**
  Play alarm sound. To setup click **Detail** (see also Chapter 3.9.1).
- **Send E-mail**
  Send an electronic text message. To setup click **Detail** (see also Chapter 3.9.2).
- **File Transmission via FTP**
  Upload file to remote computer thru FTP (File Transfer Protocol). To setup click **Detail** (see also Chapter 3.9.3).
- **Start Recording**
  Record the video from the selected camera. To setup click **Detail** (see also Chapter 3.9.4).
- **SMS (Short Message Service)/MMS (Multimedia Messaging System)**
  SMS transmits only text messages to mobile phone. MMS transmits text messages and images over wireless networks using the wireless application protocol (WAP). Make sure your mobile phone support this feature and your PC is connected to GSM/GPRS modem. To setup click **Detail** (see also Chapter 3.9.5).
- **PTZ preset point**
  Position the PTZ camera based on the preset point setting. To setup click **Detail** (see also Chapter 3.9.6).
- **Alarm SOP (Standard Operation Procedure)**
  List the instructions to inform the person of what to do when the alarm is activated. To setup click **Detail** (see also Chapter 3.9.7).
- **Send to CMS (Central Management System)**
  Enable/disable the selected camera to send video to CMS when the alarm is activated (see also Chapter 3.9.8)

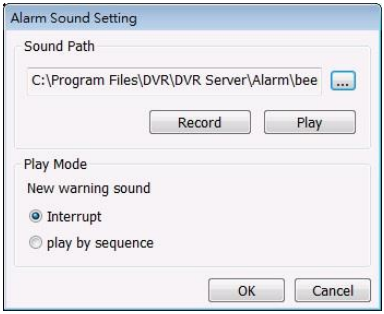
- **Snapshot**

  Take a snapshot when the alarm is activated.

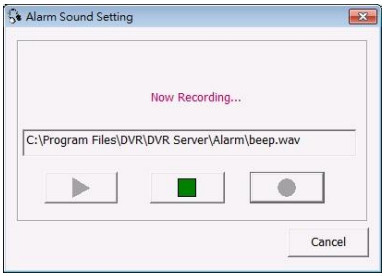
  a. **Select Camera:** specify which channel video to be snapshot when the alarm is occurred.
     - **Alarm Camera:** when a channel has an alarm occurred, and then, the NVR system will snapshot the channel video.
     - **Camera # (1~32):** the selected channel would be snapshot when an alarm is occurred.
  b. **Video Size:** select the size of snapshot picture.
  c. **Number of picture:** the number of picture that is going to be taken.
  d. **Snapshot Interval:** a time gap for next snapshot
  e. **Save Path:** a storage path for saving snapshot pictures.
  f. **Delete image after:** set a storage limit of snapshot image. When the snapshot image is over the limit, and then, the system will start recycle the snapshot image.



3.9.1 To Setup the Alarm Sound Setting



1. Beside the Play Warning Sound check box, click **Detail**.
2. In the Alarm Sound Setting dialog box, click ... to select other wav file from other source or folder, **Play** to listen, **Record** to make a new copy of a sound.
3. Select the **Play Mode**.
   - ✓ **Interrupt:** when receive the new alarm warming, immediately play new warming sound.
   - ✓ **Play by sequence:** when receive the new alarm warming, play after the on playing alarm warming.
4. If you click **Record**, you will be prompted if you want to replace the file. Click **OK** to continue and **Cancel** to discontinue.

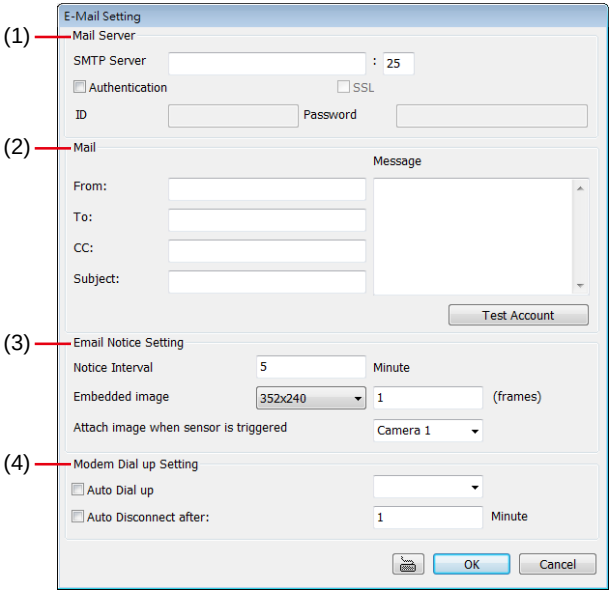


5. When the Sound Recorder appears, use the record control panel to record, stop, play, rewind and forward. If you want to keep the existing file, click **File** > **Save As…**, enter filename and click **Save**. Make sure you have microphone connected to your PC.
6. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

3.9.2 To Setup Send E-mail Setting

Beside the Send Email check box, click **Detail**. In the E-mail Setting dialog box, click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.

Gmail is supported now.



(1) Mail Server

Enter the SMTP Server and port. If your e-mail system requires user identification, enable **Authentication** check box and enter User ID and Password.

(2) Mail

To check if it is working, click **Test Account** button.

- ✓ **From:** Enter the sender e-mail address.
- ✓ **To and CC:** Enter the recipient email address and separate it with comma or a semicolon (;).
- ✓ **Subject:** Enter the message title.
- ✓ **Message:** Type the message.

(3) Email Notice Setting

- ✓ **Notice Interval:** Set the period of time before it sends another e-mail notice.
- ✓ **Embedded image :** Select the sending image's size and set the number of frames.
- ✓ **Attach image when sensor is triggered:** When the sensor is triggered, the system will capture the image and send the image to the certain e-mail address with the alarm message.

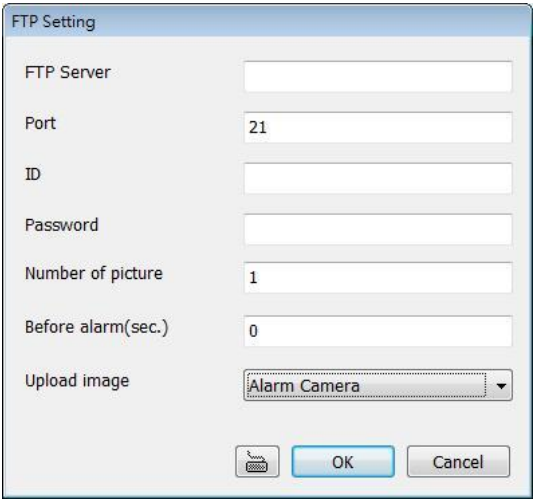
If the alarm is not triggered by sensor, the system will depends on the setting of motion detected, video loss, audio detect, and sensor in alarm setting to send the alarm image and alarm message.

(4) Modem Dial up Setting

If you are using dial up modem, enable **Auto Dial up** check box and select the modem name. You may also set the time to disconnect automatically, just enable the **Auto Disconnect after** check box and set time.

3.9.3 To Setup FTP Setting

1. Beside the File Transmission via FTP check box, click **Detail**.
2. In the FTP Setting dialog box, enter the FTP IP, port, user ID and password.
3. In **Number of Pic** text box, enter the number of sequence images that want to send when file is transmitting. The maximum number of picture can be transmitted are 16.
4. If user wants to send the recorded image before alarm occurs, enter the time that before alarm occurs in **Before alarm(sec.)**.
5. **Upload image:** Select the camera that the images will be captured and send when the any alarm is triggered. If user select the **Alarm Camera**, then only when motion trigger, video loss, missing or suspicious object/scene change will send out the alarm image.
6. Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.

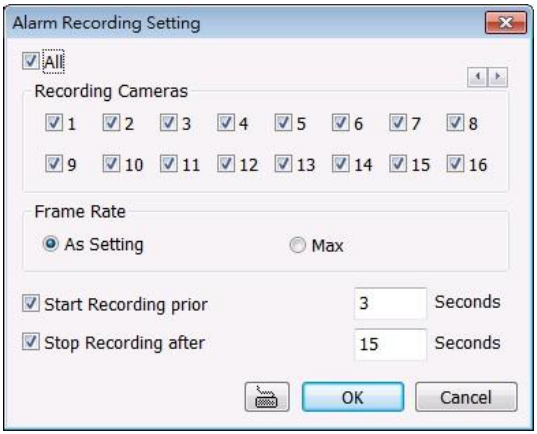


3.9.4 To Setup Alarm Recording Setting

1. Beside the Start Recording check box, click **Detail**.
2. In the Alarm Recording Setting dialog box, select the camera to enable/disable video recording. Enable **All** to select all cameras.
3. In the Frame Rate selection, select **As Setting** to record the number of frames based on the Recording Setting or **Max** to record the maximum of frames based on the available speed (maximum is 32 pictures)
4. In the **Start Recording prior** text box, mark and set the number in second for the program to pre-recording before the alarm happen. The time range is 1~10 seconds.

- When IP camera and recording resolution less or equal to D1, the NVR system only record in key frame for pre-recording.
- When camera is Mega-pixel IP camera and the recording resolution is greater than D1, the NVR system won't do any pre-recording.

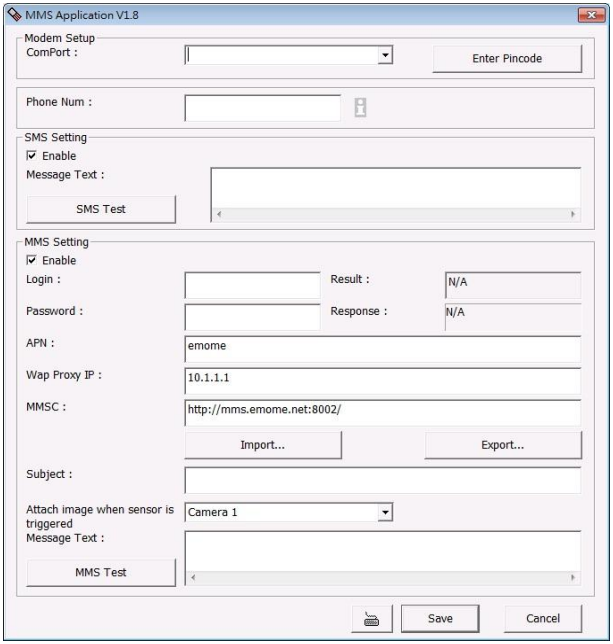
5. In the **Stop Recording after** text box, mark and set the number in second for the program to continue recording after the alarm has ended. The time range is 1~600 seconds. If user doesn't mark and set the time, the alarm recording will continue recording until alarm is reset.
6. Click **OK** to accept the new settings and **Cancel** to exit without saving.



3.9.5 To Setup SMS/MMS Setting

To use this feature, GSM/GPRS modem is required. Connect the GSM/GPRS modem to the serial COMM port of PC. Beside the SMS/MMS check box, click **Detail**.

MMS module is developed by ActiveXperts Software B.V.

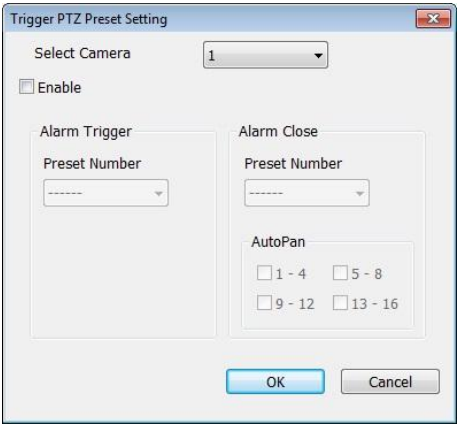


1. Select the COM port number from **ComPort** drop down list which the GSM/GPRS modem is connected. If your ISP requires the PIN code authorization, click **Enter Pincode** to enter the PIN code which your ISP provided.
2. In **Phone Num** text box, enter the contact number.
3. You may now set to send thru SMS or MMS. If you enable **SMS setting**, just enter the message in the text box. If you enable **MMS**, enter the APN name, WAP IP, MMS address and the message. If you are not sure, please contact your mobile service provider.
4. **Attach image when sensor is triggered:** select the camera that the images will be capture and send when the sensor is triggered.
5. Click **OK** to accept the new settings and **Cancel** to exit without saving.

Make sure your ISP provider and cell phone provider both support JPG file format transmitting.

3.9.6 To Setup PTZ Preset Point

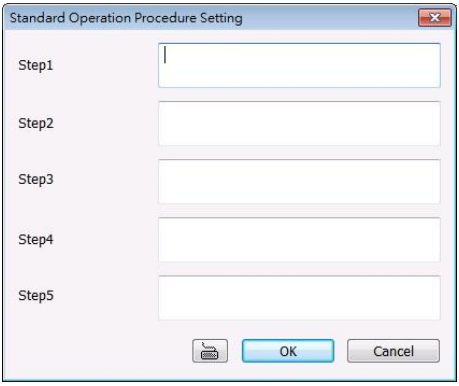
Next to the PTZ preset point check box, click **Detail**.



1. **Select Camera**: In the Trigger PTZ Preset Setting dialog box, select the PTZ camera number.
2. **Enable:** Mark **Enable** check box to enable.
3. **Alarm Trigger:** Select the position of the PTZ camera when the alarm is activated
4. **Alarm Close:** Select the position of the PTZ camera when the alarm is ended.
5. **AutoPan:** For the PTZ camera ended point, user also can select **Auto Pan** preset position groups.
6. Click **OK** to accept the new settings and **Cancel** to exit without saving.

3.9.7 To Setup Alarm SOP

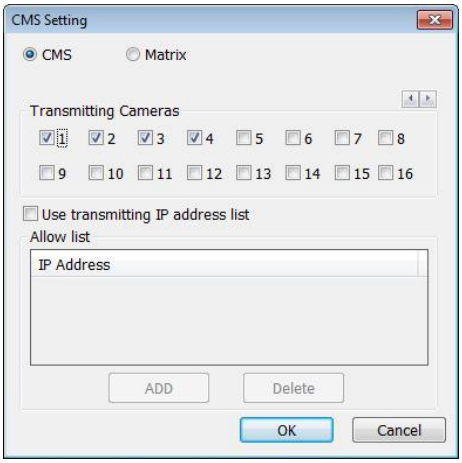
Next to the Alarm SOP check box, click **Detail**. In the step text boxes, type the standard protocol when the alarm is activated. When the alarm is activated, the Standard Operation Procedure dialog box will appear. Just click **Next** to see the next instruction, **Back** to see the previous instruction, **Finish** to end and **Abort** to terminate.



3.9.8 To Setup CMS Setting

Next to the Send to CMS check box, click **Detail**. Click **OK** to accept the new settings and **Cancel** to exit without saving.

- **CMS:** Select the camera to enable/disable sending the video to CMS.
- **Matrix:** Select the camera to enable/disable sending the alarm event video to CMS. The CMS site need to setup a matrix channel to receive the alarm event from NVR server site(please refer to CMS manual for detail)
- **Use transmitting IP address list:** Mark to enable and Set specific IP address of CMS server to receive the alarm video. When this function has enabled, only the IP address of CMS has added in Allow list can receive the alarm video from the this NVR server. The allow list is up to 32 IP addresses.

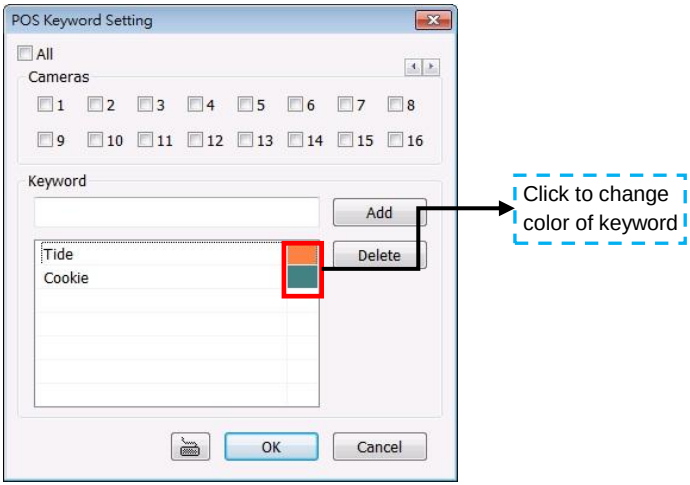


3.9.9 To Setup POS Keyword Setting

1. Next to the Send to POS Keyword check box, click **Detail**.
2. In the POS Keyword Setting, select the camera to enable/disable scanning the keyword. Enable **All** to select all cameras.
3. Enter the text below keyword text box. Click **Add** to include the keyword in the list. To remove, select the word in the list and click **Delete**. You may only add 8 keywords and multiple key words are allowed. User can use "**&**" symbol to enter multiple keyword to search (ex: coke&cookie).User can define the color for each keyword. To set the color, click the color panel after next to POS keyword column and a color selection window will pop up. Select the color that user wants and click **OK**.

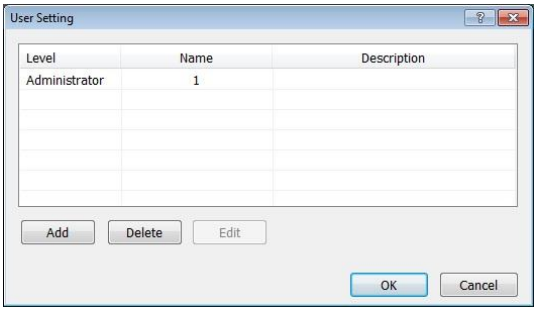
To support multiple key words, the POS device must have rule "**End Bill**" in setting. Please refer to Setup POS Device in Chapter 3.1.1.

4. Click **OK** to accept the new settings and **Cancel** to exit without saving.

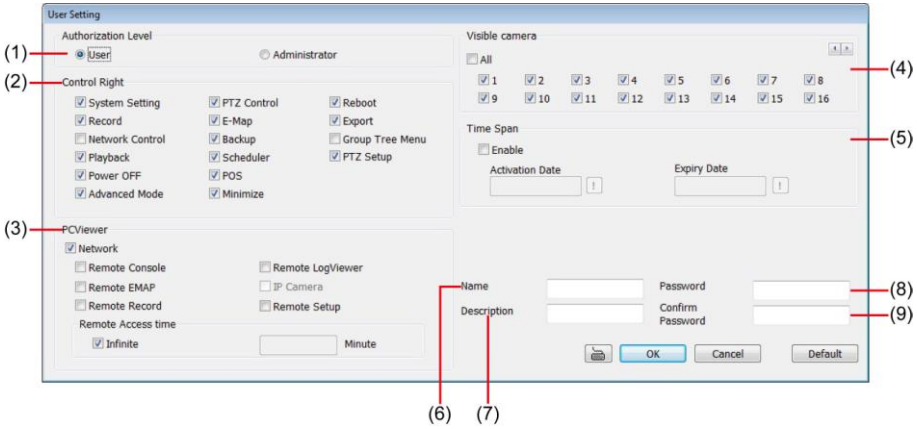


3.10 User Setting

Users with **Administrator** privileges can access **User Setting**. The maximum user accounts are 256. In the User Setting dialog box, click **Add** to insert a new user, **Delete** to remove the selected user, **Edit** to modify the user control right, **OK** to exit and accept the setting, and **Cancel** to exit without saving the setting.



After clicking **Add** or **Edit**, you may customize the user control setting. **OK** to exit and accept the setting, and **Cancel** to exit without saving the setting



(1) Authorization level

Select the status of the user. Only Administrator-level can access User Setting, and reset the Alarm status when using the Remote Console.

(2) Control Right

Enable the items that would allow the user to access.

(3) PCViewer

Enable/disable PCViewer control right that allow the user to operate from a remote location using internet explorer.

- **Remote Console**
  Allow the user to remote modify NVR system setting.
- **Remote LogViewer**
  Allow the user to view the event log from remote site.
- **Remote EMAP**
  Allow the user to view the Emap of NVR from remote site.

- **Remote Record**
  Allow the user to record video at remote site.
- **Remote Setup**
  Allow the user to modify the NVR system setup from remote site.
- **Remote Access Time**
  Enable **Infinite** check box to access NVR without time limit. If you want to set time limit, enter the number of minutes in **Minute** text box.

(4) Visible Camera

Select the camera number that would allow the user to access or view. To select all the cameras, enable the **ALL** check box.

(5) Time Span

Set the user account a specific time period that user only can use given account to login NVR program in that specific period. Mark **Enable** check box and select the **Activation Date** and **Expiry Date**.

(6) Name

Enter the user name.

(7) Description

Enter the user description.

(8) Password

Enter the user password.

(9) Confirm Password

Enter the same user password for confirmation.

Chapter 4 Playback Backup Video on PC

You can playback the backup files using QPlayer applications. When you back up the recorded file, QPlayer applications are automatically included in the backup folder.

QPlayer supports 6 different split screen types to view all the video at the same time. User even can select the different language of display UI. The only difference is that there are no Preview and Playback buttons.

To run the application, go to backup folder and double-click QPlayer icon or go to **Start** > **Program** > **DVR** > **QPlayer**.

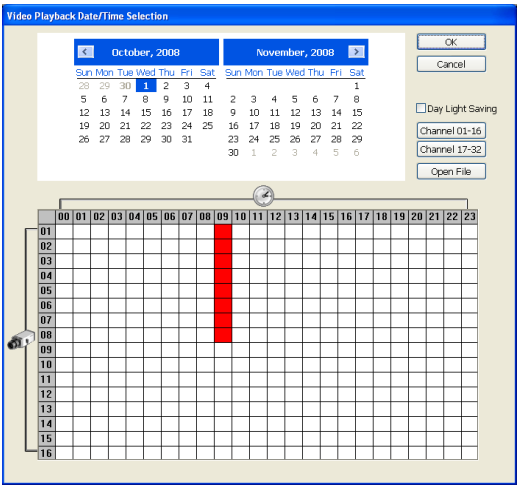
4.1 Familiarizing QPlayer Buttons

Name	Function
Exit	Close the application
(2) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.
- If there are only 4 cameras, you won't be able to switch to 9, 16, and 13 split screen mode. - To zoom in an area on the screen, **Right-click** and **Drag** a square on the screen area you want to enlarge.	
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.

Name	Function
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.

The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.

(5) Playback Control Buttons	**Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2X, 1/4X, or 1/8X. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.
(6) Archive	– Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. – **OPEN FILE:** user can open the recorded file from HDD – **Channel 01~ 16**&**Channel 17 ~ 32:** Switch to different channel group of playback calendar. – **Day Light Saving:** the playback calendar will show the available video records during day light saving time period.



The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.

(7) Status bar	Display the recorded date, time and play speed.
(8) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view

Name	Function
	other camera.
(9) Language	Switch the function tip display language.
(10) Export	Export includes Snapshot, Print, Output Video Clip, and Backup function. ■ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. ■ **Print:** Print the screen shot. ■ **Output Video Clip:** Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 2.3.1).
(11) Segment	Keep a portion of the recorded video (see also Chapter 2.3.1).
(12) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or **ESC** on the keyboard or click the arrow icon. When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.
(13) Event Log	When backup, the NVR system will include event logs. User can view the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(14) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also Chapter 2.3.3)
(15) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(16) Event Search	Search from the recorded activities that take place in the system (i.e., Sensor, Motion, Video Loss, POS). (See also Chapter 2.3.4)
(17) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 2.3.5).

When there are dual monitors with 32 channels, the full screen mode will split into 16 channels on each monitor.

Name	Function
(18) Audio	Enable/disable volume
(19) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

Chapter 5 Using the Remote Programs

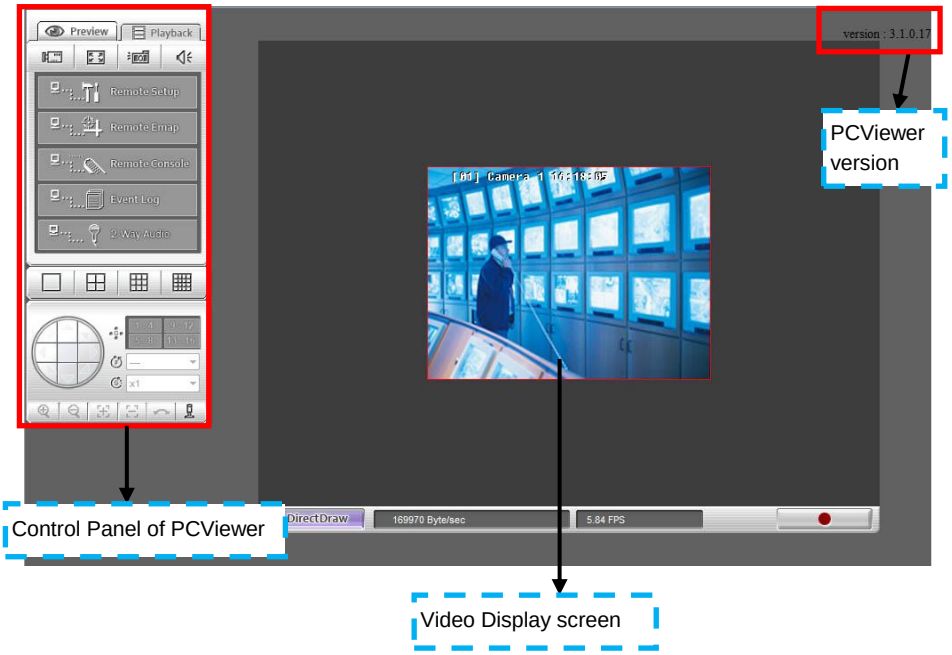
You can use Microsoft Internet Explorer to access NVR server by entering the IP address or domain name. To use this feature, make sure that you are connected to the internet and the Network feature is enabled.

The NVR site needs to enable **Network**. To enable NVR network, please refer to Chapter 2.1#(5).

Accessing this feature for the first time you will be prompted by your browser to install PCVeiwX.cab, allow the installation and you should be able to connect and login afterwards.

Click **Install** when the Internet Explorer - Security Warning dialog box appears.

After installing the **PCViewX.cab** and when connecting to the NVR server, you are required to enter User ID, password and select the network type. After login, the PCViewer interface is displayed.



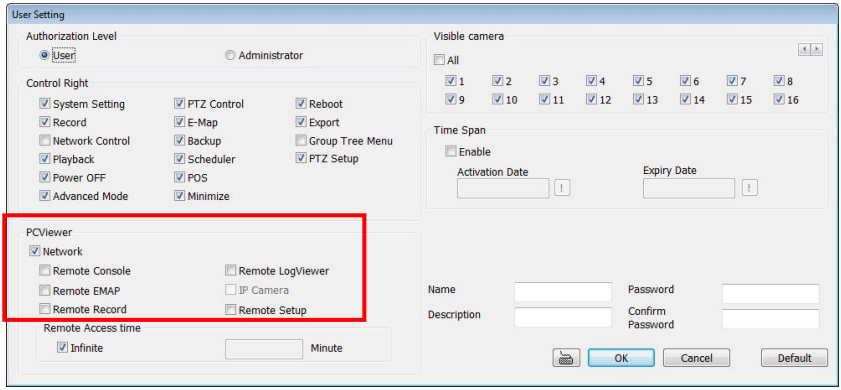
If you are not in a LAN network environment, remote playback video may be un-smooth due to network speed limitation. Slow network transmission speed may possibly cause system performance drop as well.

5.1 Familiarizing the PCViewer

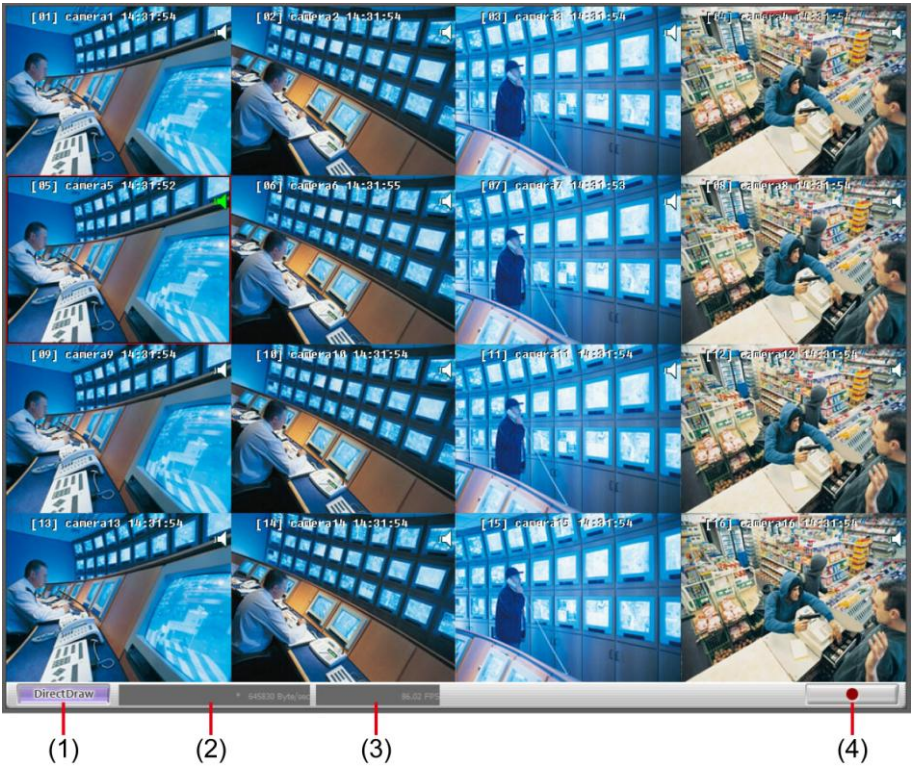
5.1.1 PCViewer Screen

Right-clicking on the PCViewer video screen, enables user to start video recording, change video quality, switch camera, enable/disable DirectDraw and view server information.

- **Start Recording:** To operate the start recording on short-cut menu, the account authority that user uses to access NVR system needs to be enabled on User setting (see Chapter 3.10).



- **Select Camera:** Select the camera channel to view.
- **Server Information:** The server information is shown NVR server's information, not the PC that user has to connect with NVR server.

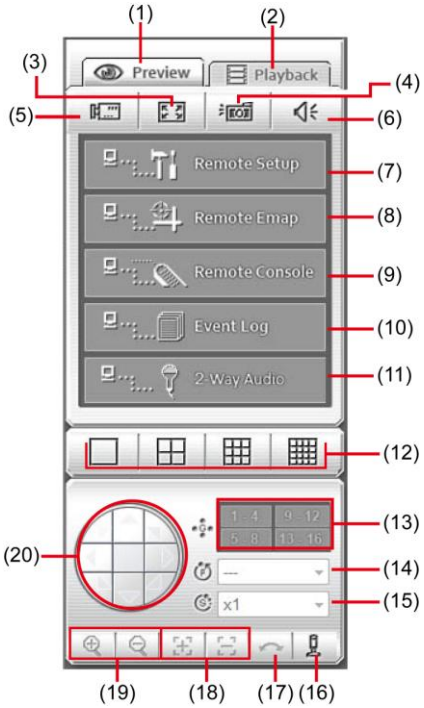


Name	Function
(1) DirectDraw	Enhance the video quality.

Not all graphic cards can support this function. If you cannot see the screen display correctly or screen is messed, please check with VGA card vendor.

(2) Received file size	Indicate the size of the data being sent per second.
(3) Camera frames	Indicate the number of frames per second.
(4) Record	Start to record the video of the selected camera in AVI format. Directly click screen to select the channel that user wants to record and press **Record** button.

5.1.2 PCViewer Control Panel



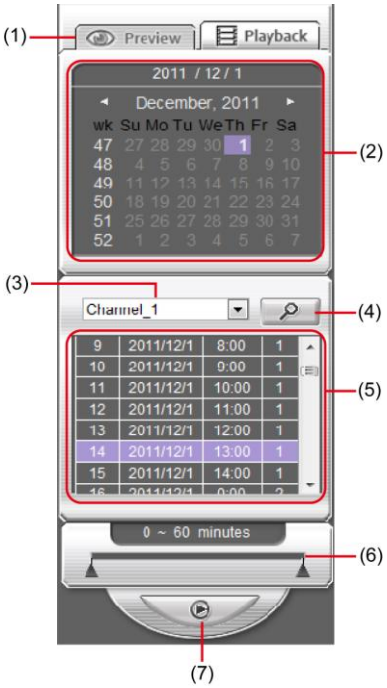
Name	Function
(1) Preview Mode	Switch to preview mode control panel.
(2) Playback Mode	Switch to playback mode control panel.
(3) Full screen	Use the entire area of the screen to only display the video. To return, Right click the mouse or press **ESC** on the keyboard.
(4) Snapshot	Capture and save the screen shot in *.bmp format.

Name	Function
(5) Select cameras to view	Select to the view camera from different server. In Select Camera dialog box, Display column, click to enable/disable viewing the camera. Click **Add Server** and select the server type between NVR and IP Cam to add. Click **Delete Server** to delete the selected item. Click **Import** to load the previous saved list. Click **Export** to save the list. Click **Apply All** to change all the camera video quality based on the selected setting. Click **OK** to exit. To add IP Cam, user need to enable IP Camera control right at the **User setting** of NVR system.(see Chapter 3.10)
(6) Audio	Enable/disable remote sound.
(7) Remote setup	Change the NVR server settings (see also Chapter 5.1.4).
(8) Remote Emap	Display the NVR server Emap screen (see also Chapter 2.1.1).
(9) Remote Console	Initiate Remote Console. The interface is the same as NVR application and allows you to control NVR server (see also Chapter 5.2).
- If you are using Windows7 32/64 bit, please make sure you execute IE as system administrator. To execute IE as system administrator, please right-click on IE shortcut icon and select “To execute as Administrator”. - In Windows 7 32/64 bit, NVR system only support IE in 32 bit version.	
(10) Event Log Viewer	Display the Event logs, Operation logs, POS logs, System logs, and Network logs.
(11) 2-Way Audio	Enable/disable 2-way audio function. This function allows the client and server to talk via internet using MIC. Make sure your microphone and speakers work before using this function. If the NVR server Talk to web-client setting is disabled, you won’t be able to hear from the other side.
(12) Split screen view	Select from four different split screen types to view all the cameras.
(13) Auto Pan Group	Operate the PTZ cameras automatically based on the selected camera group preset position number.
(14) Camera preset position number	Move the PTZ camera to the preset point.
(15) Direction buttons’ moving speed	Adjust the moving speed of the PTZ camera lens. This speed will apply to the **(20) Direction buttons**’ moving speed only.
(16) Select PTZ	Choose to enable/disable the PTZ camera. In the Select PTZ dialog box, Select column, click to enable/disable viewing and controlling the PTZ camera. Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.

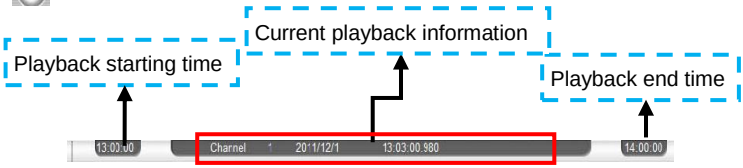
Name	Function
(17) Atuo Pan	Enable the PTZ cameras automatically based on the selected camera group preset position number.
(18) Zoom +/-	Zoom the image in or out.
(19) Focus +/-	Adjust the focus manually to produce clear image.
(20) Direction Buttons	Adjust and position the focal point of the PTZ camera. The supported direction buttons are depended on the PTZ camera has supported.

5.1.3 Playback Mode Control Panel

The PCViewX.cab. installation is required for first time using PCViewr playback function. The PCViewX.cab installation requirement is appeared when user select Playback function.



Name	Function
(1) Preview Mode	Switch to preview mode control panel
(2) Date	Select the date that user wants to playback. Click ◄ ► icon can switch month and year. The selected date is highlight with purple color.
(3) Channel	After select the date, please select the channel that user wants to playback or select all channels.
(4) Search button	After selected date and channel, click search button to find the recorded file. The result of search result is displayed below area.
(5) Search result	Display the search result that is searched base on the date and channel user has selected. Select the recorded time file in result table and click play button to playback.
(6) Playback time progress bar	User can setup the certain time period for playback. The recorded file default is playback in 60 minutes long. User can adjust to the specific time period to playback instead to move the scroll bar while playback.

Name	Function
(7) Play button	After select the file, click it to start playback. Move to the begin Move to the end 

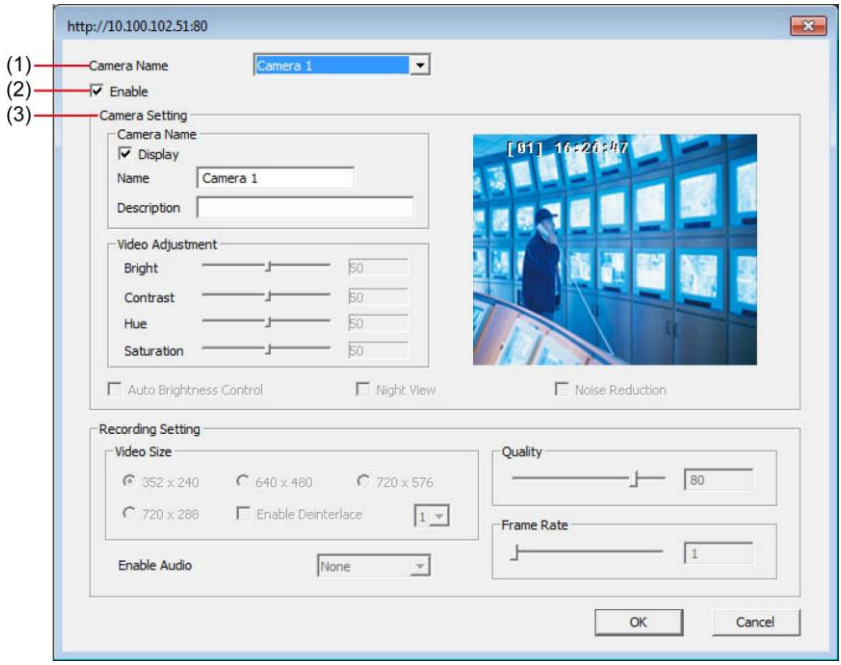
5.1.4 To Setup Remote System Setting

There are two type of remote setup mode – Basic Setting and Advance Setting. Select the setup mode and click **OK** to enter setup window.

Basic Setting

Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting. The setting here applies to Remote NVR only.

Some of settings are not available to the IP camera.



(1) Camera Name

Select the camera you want to adjust the settings.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Camera Setting

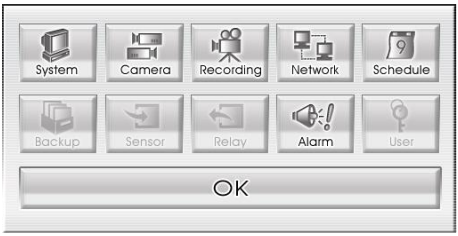
- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can

still record the video and preview it in playback mode.

- **Name**
  Change the camera name.
- **Description**
  Add a short comment.

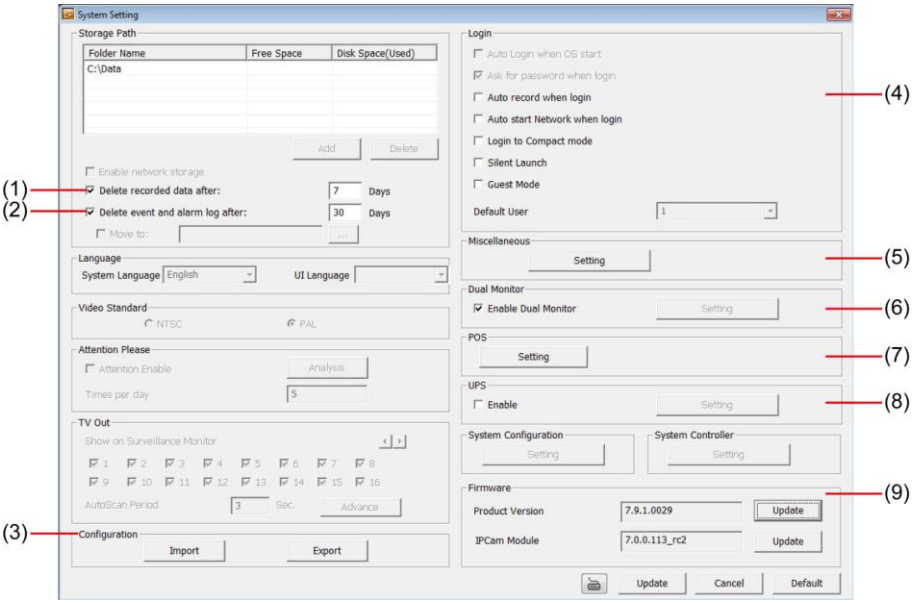
Advance Setting

In Advance setting, user can configure remote NVR in more detail.



System Setting

In the System Setting window, click **Update** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting.



(1) Delete recorded data after

If you want the system to automatically erase the data after a certain days, enable the **Delete recorded data after** check box and enter the numbers of days in **Days** text box.

(2) Delete event and alarm log after

If you want the system to automatically erase the event and alarm log files after a certain days, enable the **Delete event and alarm log after** check box and enter the numbers of days in **Days** text box.

(3) Configuration

Backup a copy of all the settings and allows you to regain the same settings back. To save the current settings, click **Export**. To replace the settings with the one you have saved, click **Import**. The export and import file will include Emap configuration.

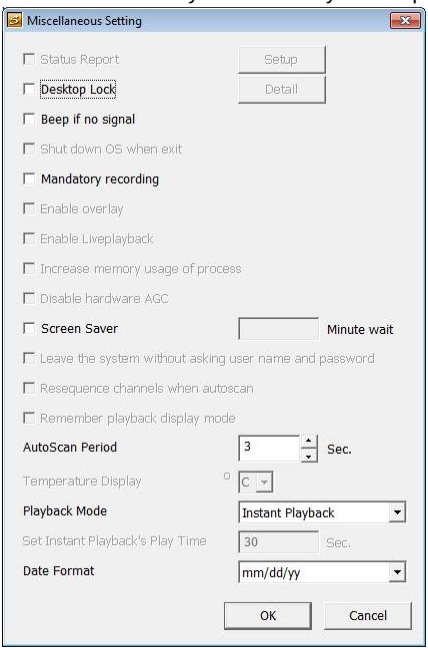
(4) Login

Enable the conditions in Login section you want the system to automatically carry out.

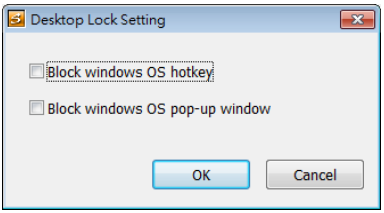
- **Auto record when login**
  Automatically start video recording when the NVR is executed.
- **Auto start Network when login**
  Automatically connect to network when the NVR is executed.
- **Login to compact mode**
  Switch to compact mode directly when the NVR is executed.
- **Silent Launch**
  Enable the NVR system minimizes on the system tray automatically right after start up.
- **Guest Mode**
  Automatically log in Guest mode when the NVR is executed. In guest mode, the functions are limited to preview and playback only.

(5) Miscellaneous

Enable the conditions in **Miscellaneous** section you want the system to perform.



- **Desktop Lock**
  - ✓ **Block window OS hotkey:** Deactivate the [Ctrl-Alt-Del] and [Windows] keyboard key functions.
  - ✓ **Block windows OS pop-up window:** To block any pop-up window from windows system.



- **Beep if no signal**
  Make sound when the video signal is lost.
- **Mandatory Record**
  Always record video when software is running
- **Enable Overlay**
  To enhance video signal for better video quality.
- **Screen Saver**
  Set a period time to enter screen saver mode when system idle.
- **Auto Scan Period**
  Set the time gap of the Auto Scan function from 3 to 10 seconds. This automatically switches to the next video in cycle depending on the set time gap.
- **Playback Mode**
  Select the mode of playback the video.
  - ✓ **Select date and time:** Select the date and time which user wants to playback.
  - ✓ **Play the last file:** Automatically playback the video from the last hour
  - ✓ **Instant Playback:** Automatically playback the video which has just recorded
- **Date Format**
  Select the date format which wants to display in **Select date and time** playback mode

(6) Dual Monitor

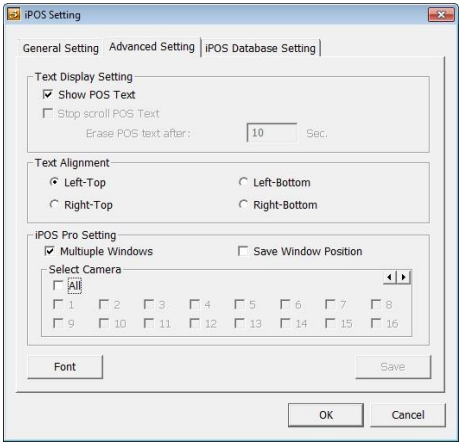
To enable/disable dual monitor function.

(7) POS

Set from which camera screen to display the data from the POS equipment. Click **Setting** to enter the setup window.

■ **Advanced Setting**

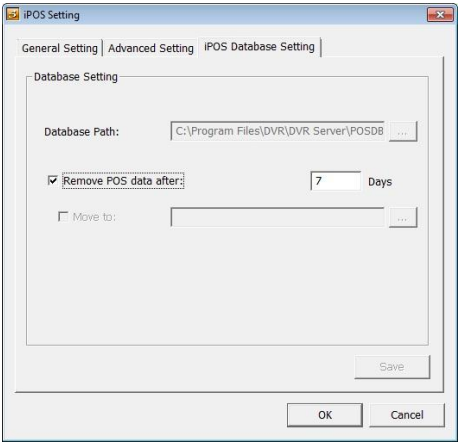
To setup POS text display position, text font and color.



1. In the System Setting dialog box, POS section, click **Setting** >> **Advanced Setting**
2. Mark **Show POS Text** to allow POS data to be display on surveillance screen.
3. Select the POS data display position on surveillance screen – Left-Top, Left-Bottom, Right-Top, or Right-Bottom.
4. Mark **Multiple Windows** to allow more than one iPOS live data window (see also iPOS Live in Preview mode) display on the preview screen mode.
5. Mark **Save Window Position** that iPOS live data window position(see also iPOS Live in Preview mode) will be saved as next time call out position when close
6. Select the **Cameras** of iPOS live data that want to be display on Preview mode. To select all cameras, mark **All**.
7. To change the POS data font and color, click **Font**.
8. When it is done, click **Save** to complete the configuration.

- **POS Database Setting**

  Mark **Remove POS data after** the POS data will be delete from NVR hard disk on the day that user has setup.



(8) UPS (Uninterruptible Power Supply)

Protect the system from damaging, such as power surges or brownouts. This automatically gives time to close the NVR properly when the battery backup power has reached the Shutdown when capacity below percentage level setting.

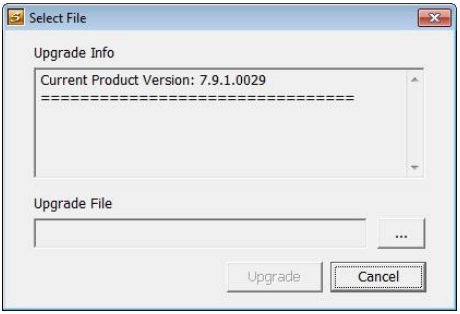
The UPS device must be connected to your computer (refer to your UPS user's guide).

The UPS application must meet Windows XP or Windows 7 system requirements.

(9) Firmware

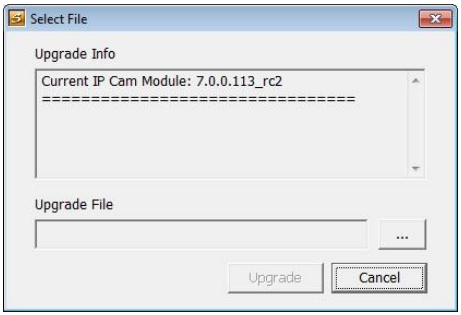
User can upgrade the NVR system and IP camera patch from remote site. Please contact your local dealer for newest NVR firmware and IP camera patch.

- **Product Version:** displays current NVR system firmware version. Click **Update** button to upgrade the NVR firmware.



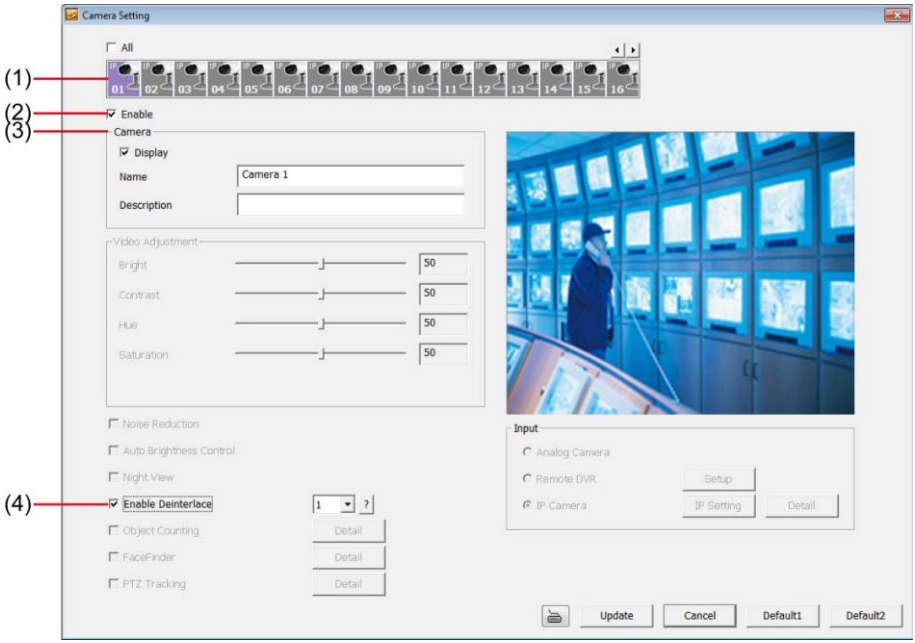
- IPCam Module: displays current IP camera patch version. Click **Update** button to upgrade the IP camera patch.

The NVR system only accepts version of IP camera patch is newer than current version, the older version is not allowed.



Camera Setting

Select the camera from remote NVR servers to modify settings. In the Camera Setting window, click **Update** to save and apply the new settings, click **Exit** to exit without saving, and click **Default1/ Default2** to revert back to original factory setting.



(1) Camera Icons

Select the camera number you want to adjust the video setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, Right click on the camera icon. To select one camera only, Left click on the camera icon. The camera icon turns red when it is selected.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Camera

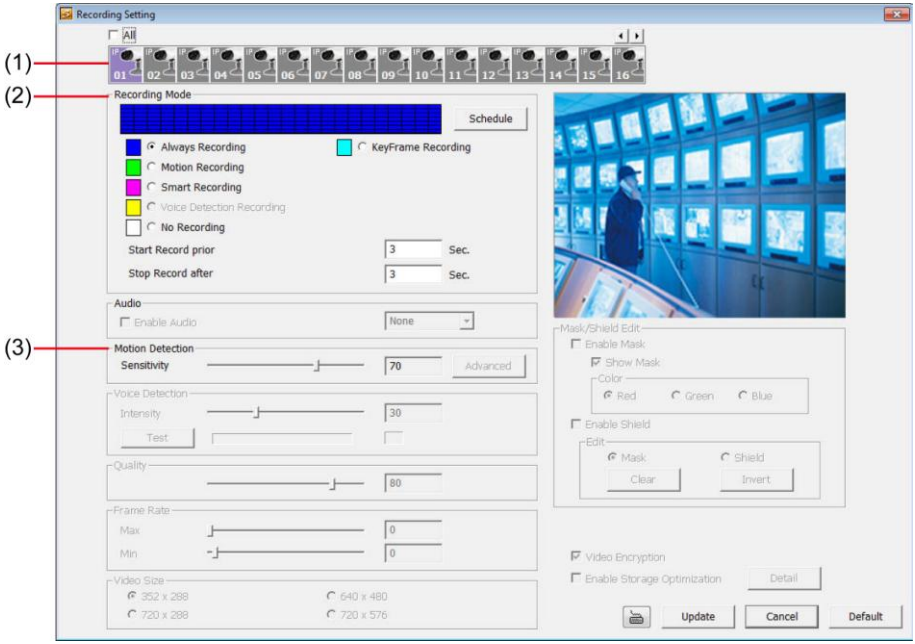
- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Name**
  Change the camera name.
- **Description**
  Add a short comment.

(4) Enable Deinterlace

To enhance the video quality. Set the deinterlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

Record Setting

In the Recording setup window, click **OK** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting.



(1) Camera Icons

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns red when it is selected.

(2) Recording Mode

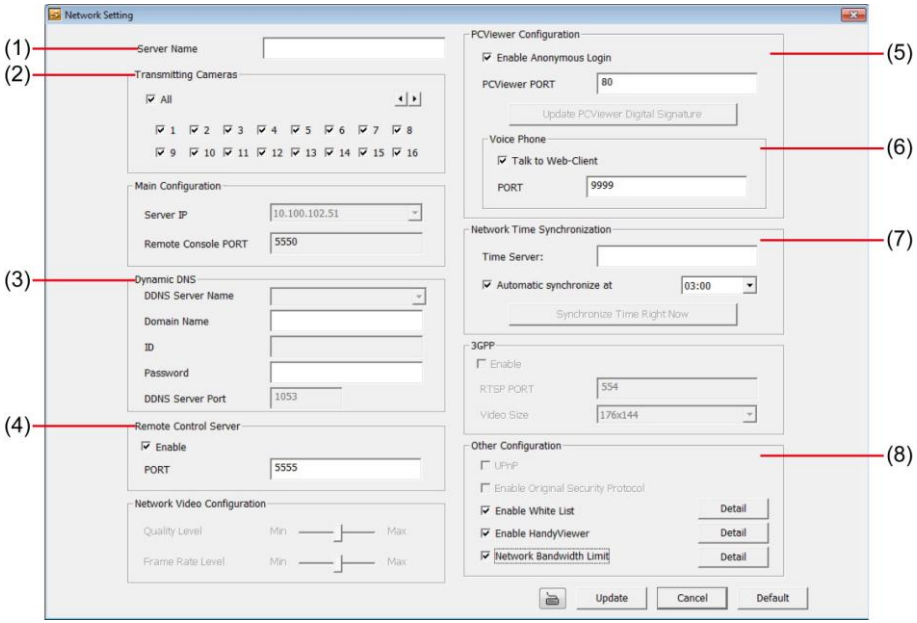
The blocks from 00 to 23 represent the time in 24-hour clock. To record in full 24 hours, select the recording mode and click the ⊙ button. If you want to only record at a particular time, click the colored block beside the recording mode then click on the time blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen. The recording modes are listed below:

- **Always Recording**
  Record the video from the selected camera and save it to the designated storage path
- **Motion Recording**
  Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and **Stop Record After** settings.
- **Smart Recording**
  Automatically switch to recorded at the maximum frame rate setting once a motion is detected and if there is no motion, it records at the minimum frame rate setting.
- **Voice Detection Recording**
  NVR system will record when the voice exceeds the intensity value in **Voice Detection** setting.
- **No Recording**
  The system won't do any recording.

(4) Motion Detection
Adjust the sensitivity of the motion detector. The higher the value, the finer the sensitivity is detected. When it detects a motion, a green triangle mark would appear at the upper left corner of the screen.

Network Setting

In the Network Setting dialog box, click **Update** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting. For the network service ports that use by NVR server, please see Appendix C.



(1) Server Name

Assign a name for the NVR unit. Letters of the alphabet and numbers only.

(2) Transmitting Cameras

Select and click on the camera number in the Transmitting Camera section you want to make it accessible via internet using WebCam, Remote Console, PDA Viewer and Hand Viewer (still image). To select all the cameras, enable the **ALL** check box.

(3) Dynamic DNS (Domain Name System)

Use this service if the IP address changes each time when you connect to internet. Enter the **Domain Name** and **Password** that user has registered, select the **DDNS Server Name** which the one that user had registered the domain name, and enters the **DDNS Server Port** that is a service port for connecting with the DDNS server.

To use this feature, please go to **http://ddns.avers.com.tw** or **http://www.dyndns.com** (see also Appendix A) to register your own domain name.

(4) Remote Control Server

Enable/disable remote control from remote application (ex. CMS). Enter the remote accessing port in **Port** column.

(5) PCViewer Configuration

Activate **Enable Anonymous Login** to remotely access the NVR server without the need of password. The default of WebCam port is 80.

(6) Voice Phone

Voice Phone is a 2-Way Talk feature that allows the client and server to talk via internet using microphone. Make sure both microphone and speakers work before using this feature. If the **Talk to Web-Client** is disabled, the person in the NVR server side can only hear the voice from the client side that is when the WebCam 2-Way Talk button is activated.. The default port of voice phone is 9999.

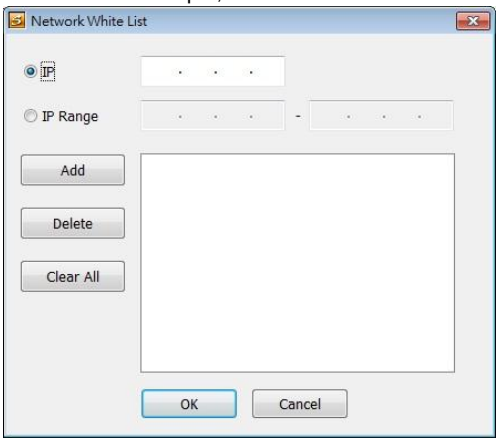
(7) Network Time Synchronization

Adjust the NVR system time same as network time server. Fill in the **Time Server** IP address or domain name. Select **Automatic Synchronize** time to set automatic synchronize time on a daily basis.

(8) Other Configuration

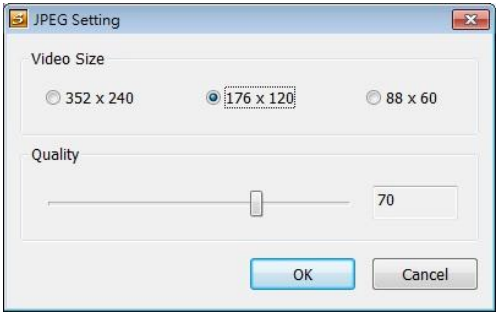
- **Enable White List**

  An access permit list for the remote accessing of NVR server. Enter the IP address and click **Add**. Or, enter a range of IP address and click **Add**. To delete the IP from the list, select the IP and click **Delete** button. To reset the input, click **Clear** button.

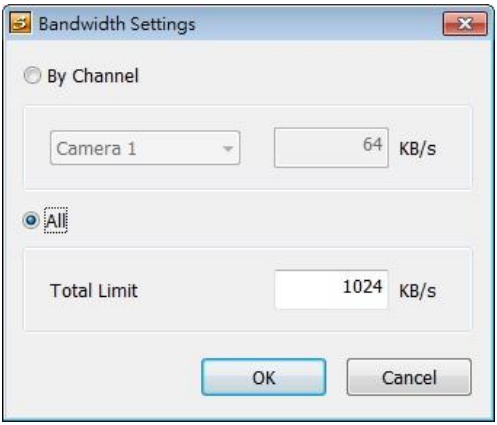


- **Enable HandyViewer**

  Enable remote users to use a PDA or a mobile phone to access NVR server and select the video size and quality. (See also Chapter 5.5 and Chapter 5.6)

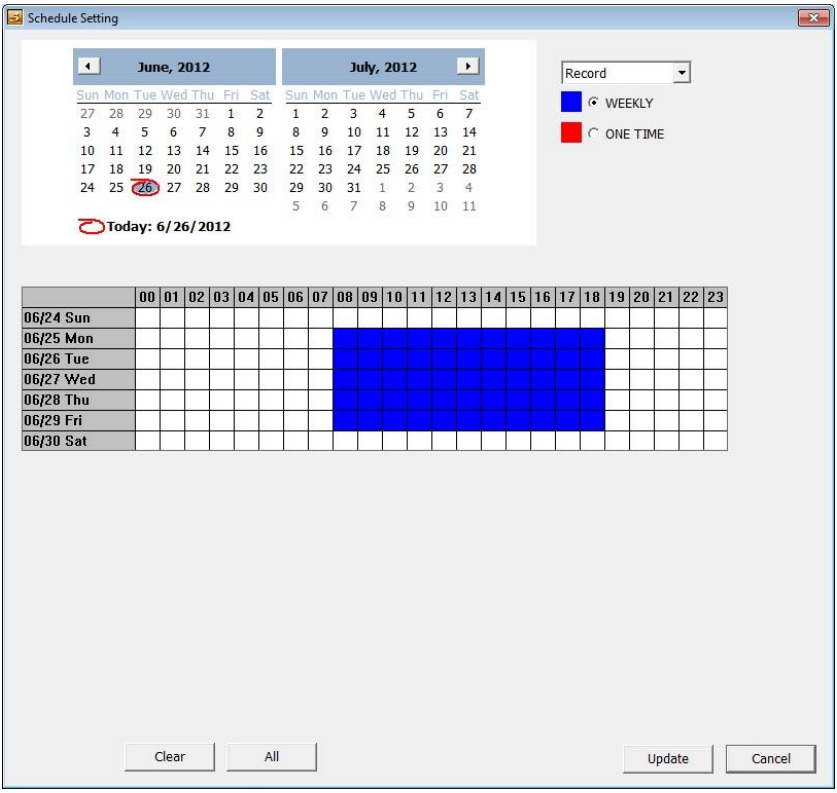


- **Network Bandwidth Limit**
  - ✓ **By Channel:** Set the network bandwidth by each channel.
  - ✓ **All:** Set the total network bandwidth consumption limit.



Schedule Setting

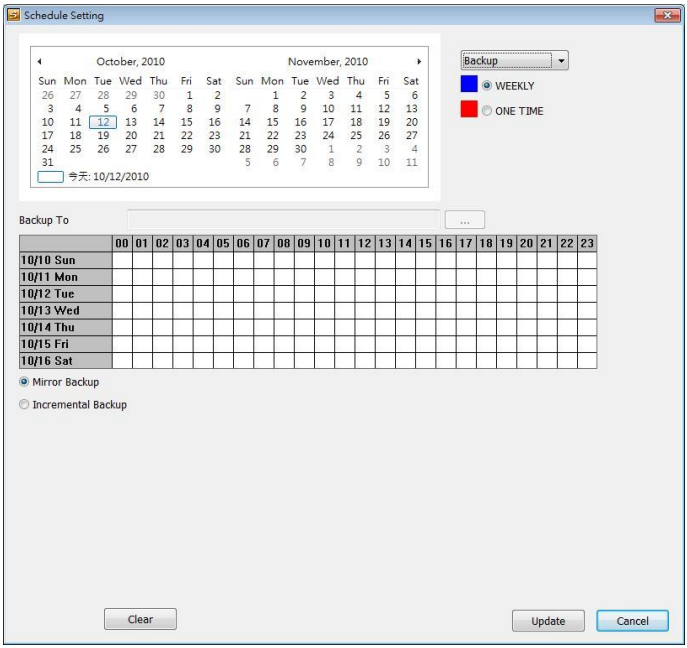
Schedule to record, backup, enable network, reboot and disable alarm of all the cameras either weekly or one time. The number from 00 to 23 represent the time in 24-hour clock. The left most column display the days in a week.



To Set the Schedule Setting:

1. Select the date in the calendar. Use ◄ and ► buttons to shift the calendar to the left or right.
2. Select the condition you want to schedule in the drop down list.
   - **Record**
     Activate all the cameras to start video recording at the set time based on the Recording setting (see also Chapter 3.3).

- **Backup**
  Save another copy of all the data at the set time and specified backup path. NVR automatically updates and only backup the data that are not yet included in the archive.
  To assign backup path, click [...].



  - ✓ **Mirror Backup:** Save a copy of all the data at the set time and specified backup path.
  - ✓ **Incremental Backup:** Only backup the data that are not yet included in the archive from last time.

> Make sure the backup folder and storage folder are not on the same drive.

- **Network**
  Activate NVR remote system to access at the set time. After the appointed time, the Network function will be disabled. If the Network function is already enabled, the Network function will not be disabled when the appointed time has ended.
- **Reboot**
  Restart the PC at the appointed time.

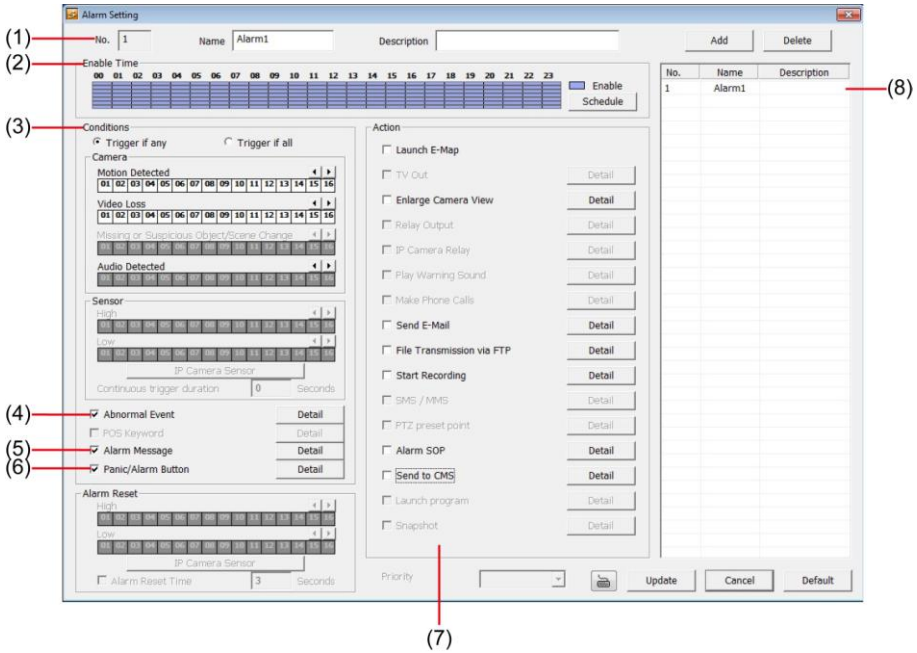
> Make sure the Windows operating system is set **NOT** to require you to login user name and password. This way the system will be able to run NVR program.

- **Disable Alarm**
  Deactivate the alarm at the set time temporarily.

3. Specify to either schedule it weekly or one time. Click ⊙ to make a selection.
4. Click on the blocks to set the schedule (see also Chapter 3.5.1). Or click **All** to select all. To store the setting, click **Save**. To remove the settings, click **Clear**.
5. To end Schedule Setting, click **Update** to exit and accept the setting and **Exit** to exit without saving the setting.

Alarm Setting

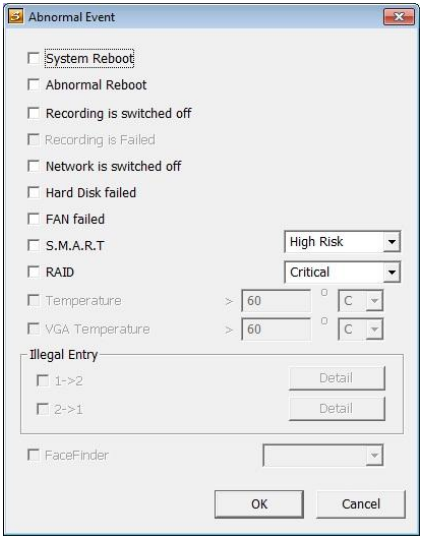
In the Alarm Setting dialog box, click **Add** to insert and set new alarm setting, click **Delete** to remove the selected alarm setting, click **OK** to exit and save the setting, **Cancel** to exit without saving, and **Default** to revert back to original factory setting.



To set the Alarm Setting:

1. Click **Add** to insert and set a new alarm setting. Click the items in the **(8) Alarm Setting List**, if you want to modify the alarm setting.
2. In **(1) Alarm Setting number/Name/Description**, display the selected alarm setting number in the list below. Enter alarm name and description.
3. In **(2) Enable Time**, the number from 00 to 23 represent the time in 24-hour clock. Select the time and click the block you want to activate or deactivate the alarm function. When it is deactivated the color of the block turns white.
4. In **(3) Conditions**, you can set "**Trigger if any**" to activate if it falls to one of the conditions or "**Trigger if all**" to activate if it falls to all conditions. In Camera section, select and click on the camera number in **Motion Detected** and **Video Loss** to set the condition for the system to alarm.
5. In **(4) Sensor**, select and click on the sensor number (use ◀ and ▶ to select the sensor) to set the condition for the system to alarm. If the sensor normal status is high, set the sensor condition to low.
   - Enable/disable the **Abnormal Event** check box, to set the condition of the event for system to alarm.
     - **System Reboot:** when the NVR system reboot without abnormal condition, the system will send out the alarm message.

- **Abnormal Reboot:** when the NVR system reboot in irregular condition, the system will send out the alarm message.
- **Recording is switched off:** when the recording has been stopped, the system will send out the alarm message.
- **Network is switched off:** when the network connection of NVR system is lost, the system will send out the alarm message.
- **Hard Disk failed:** when the hard disk can't work normally, the system will send out the alarm message.
- **FAN Failed:** when the fan of DVR has been stopped, the system will send out the alarm message.
- **S.M.A.R.T.:** select the risk level (High or Low) that base on the DVR system's S.M.A.R.T. mechanism to detect the hard disk's status and the system will send out the alarm message when the status has matched the selected risk level.
- **RAID:** select the status level of RAID that NVR system will send the alarm when RAID status match the selected status.



- Enable/disable the **Alarm Message** check box, to active with external alarm message by your own program. For the detail configuration, please contact the local reseller.
- Enable/disable the **Alarm Button** check box, to active manual alarm function. To define alarm message of manually alarm trigger. Click alarm button and select the alarm button # and fill in the description of alarm button. When the alarm buttons have been setup, the Alarm Button icon will show up on the NVR application UI. User can click the Alarm button icon to trigger the pre-defined alarm.

6. In **(5) Alarm Reset**, click the camera number (use ◀ and ▶ to select the alarm) to set the reset condition of alarm. Once alarm is reset, all alarm action will stop at the moment. If the sensor normal status is high, set the sensor condition to low.

7. In **(6) Action**, you may now set the alarm action for the system to perform when the alarm condition is activated.

- **Launch EMap**
  Display mini Emap screen.
- **Enlarge Camera View**
  Switch to only display video in Preview/Advanced mode from where the alarm is activated.
- **Send E-mail**
  Send an electronic text message. To setup click **Detail** (see also To Setup Send E-mail).
- **File Transmission via FTP**
  Upload file to remote computer thru FTP (File Transfer Protocol). To setup click **Detail** (see also To Setup FTP).
- **Start Recording**
  Record the video from the selected camera. To setup click **Detail** (see also To Setup Alarm Recording).
- **Alarm SOP (Standard Operation Procedure)**
  List the instructions to inform the person of what to do when the alarm is activated. To setup click **Detail** (see also To Setup Alarm SOP).
- **Send to CMS (Central Management System)**
  Enable/disable the selected camera to send video to CMS when the alarm is activated (see also To Setup CMS Setting)

To Setup Send E-mail Setting

Beside the Send Email check box, click **Detail**. In the E-mail Setting dialog box, click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.

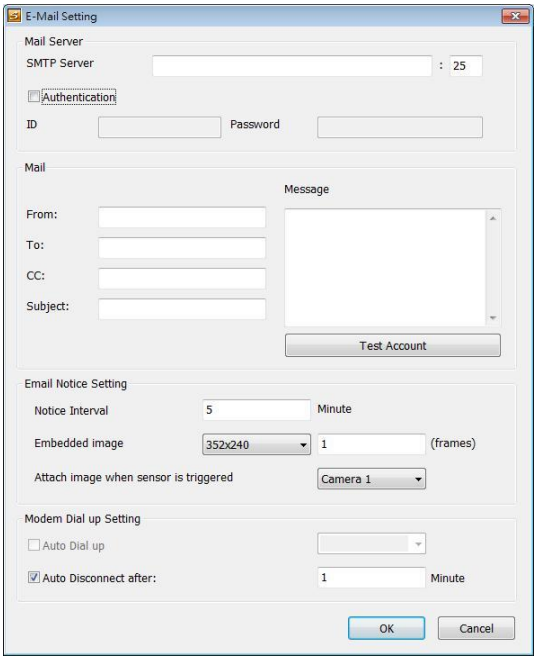
Gmail is supported now.

- **Mail Server**
  Enter the SMTP Server and port. If your e-mail system requires user identification, enable **Authentication** check box and enter User ID and Password.
- **Mail**
  To check if it is working, click **Test Account** button.
  - ✓ **From:** Enter the sender e-mail address.
  - ✓ **To and CC:** Enter the recipient email address and separate it with comma or a semicolon (;).
  - ✓ **Subject:** Enter the message title.
  - ✓ **Message:** Type the message.
- **Email Notice Setting**
  - ✓ **Notice Interval:** Set the period of time before it sends another e-mail notice.
  - ✓ **Embedded image:** Select the sending image's size and set the number of frames.
  - ✓ **Attach image when sensor is triggered:** When the sensor is triggered, the system will capture the image and send the image to the certain e-mail address with the alarm message.

If the alarm is not triggered by sensor, the system will depends on the setting of motion detected, video loss, audio detect, and sensor in alarm setting to send the alarm image and alarm message.

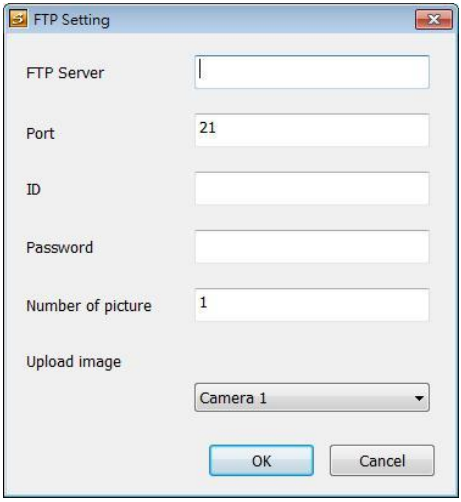
-

- **Modem Dial up Setting**
  User may set the time to disconnect automatically, just enable the **Auto Disconnect after** check box and set time.



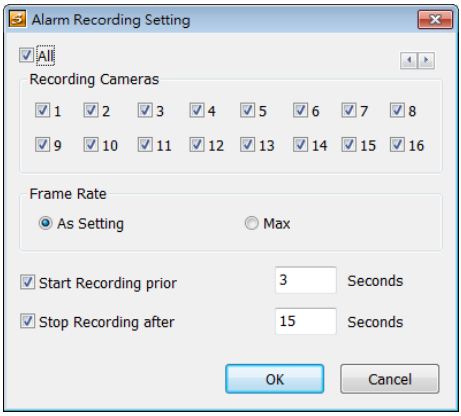
To Setup FTP Setting

1. Next to the File Transmission via FTP check box, click **Detail**.
2. In the FTP Setting dialog box, enter the FTP IP, port, user ID and password.
3. In **Number of Pic** text box, enter the number of sequence images that want to send when file is transmitting. The maximum number of picture can be transmitted are 16.
4. If user wants to send the recorded image before alarm occurs, enter the time that before alarm occurs in **Before alarm(sec.)**.
5. **Upload image**: User needs to select the camera that the images will be capture and send when the any alarm is triggered.
6. Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.



To Setup Alarm Recording Setting

1. Next to the Start Recording check box, click **Detail**.
2. In the Alarm Recording Setting dialog box, select the camera to enable/disable video recording. Enable **All** to select all cameras.
3. In the Frame Rate selection, select **As Setting** to record the number of frames based on the Recording Setting or **Max** to record the maximum of frames based on the available speed.
4. In the **Start Recording prior** text box, mark and set the number in second for the program to pre-recording before the alarm happen. The time range is 1~10 seconds.

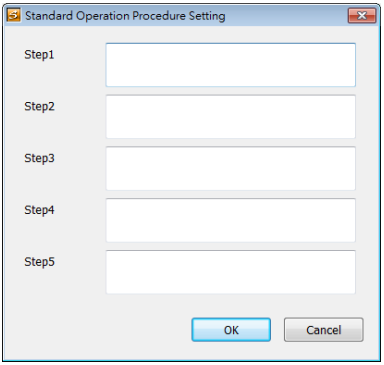


The NVR system only record in key frame for pre-recording.

5. In the **Stop Recording after** text box, mark and set the number in second for the program to continue recording after the alarm has ended. The time range is 1~600 seconds. If user doesn't mark and set the time, the alarm recording will continue recording until alarm is reset.
6. Click **OK** to accept the new settings and **Cancel** to exit without saving.

To Setup Alarm SOP

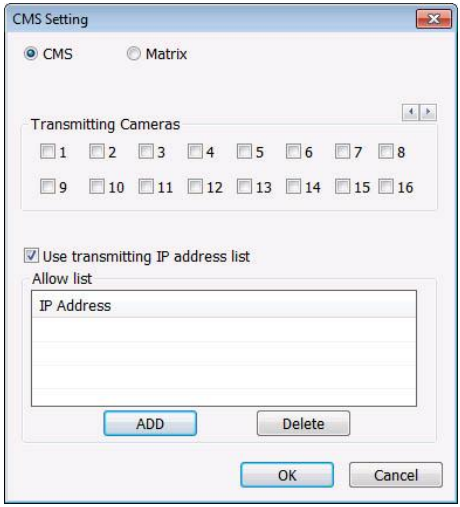
Next to the Alarm SOP check box, click **Detail**. In the step text boxes, type the standard protocol when the alarm is activated. When the alarm is activated, the Standard Operation Procedure dialog box will appear. Just click **Next** to see the next instruction, **Back** to see the previous instruction, **Finish** to end and **Abort** to terminate.



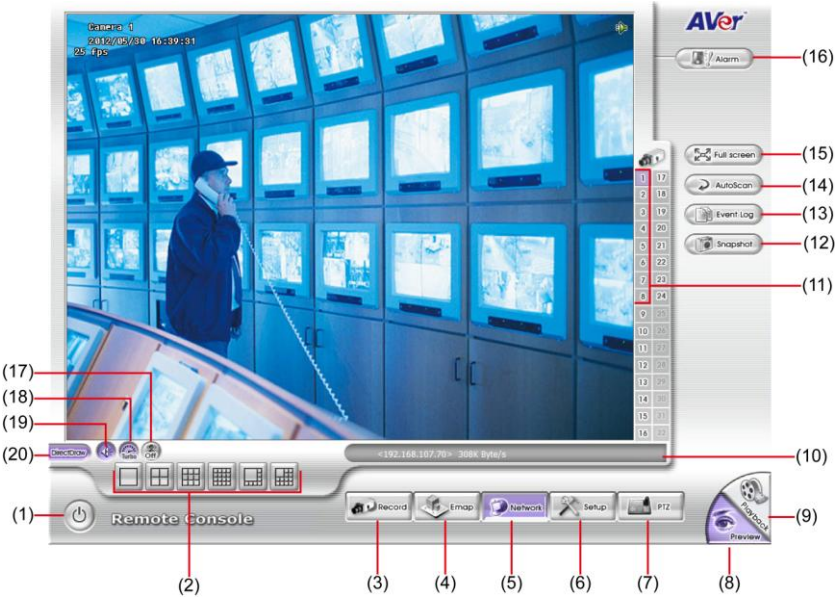
To Setup CMS Setting

Next to the Send to CMS check box, click **Detail**. Click **OK** to accept the new settings and **Cancel** to exit without saving.

- **CMS:** Select the camera to enable/disable sending the video to CMS.
- **Matrix:** Select the camera to enable/disable sending the alarm event video to CMS. The CMS site need to setup a matrix channel to receive the alarm event from NVR server site(please refer to CMS manual for detail)
- **Use transmitting IP address list:** Mark to enable and Set specific IP address of CMS server to receive the alarm video. When this function has enabled, only the IP address of CMS has added in Allow list can receive the alarm video from the this DVR server. The allow list is up to 32 IP addresses.



5.2 Familiarizing the Remote Console Buttons



Name	Function
(1) Exit	Close the Remote Console.
(2) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.

- If there are only 4 cameras, you won't be able to switch to 9, 16, and 13 split screen mode.
- To change the video quality, right-click on the screen and select between High, Normal or Low.

(3) Record	Start/stop video recording.
(4) Emap	Display the map in each area, the camera/sensor/relay location and the warning event. (see also Chapter 2.1.1)
(5) Network	Enable/disable remote system access. This feature allows you to access NVR server from a remote location via internet connection.
(6) Setup	Configure the Remote Console setting. (see also Chapter 5.2.1)
(7) PTZ	Access PTZ control panel. Beside PTZ camera, NVR system also support mega pixel IP camera.(see Chapter 5.3)
(8) Preview	Switch to Preview/Advanced mode. This allows you to view live camera display.
(9) Playback	Switch to Playback mode. This allows you to view the recorded video file. (see Chapter 5.4)
(10) Status Bar	Display the current date, time and hard disk free space.
(11) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.

Name	Function
(12)Snapshot	Capture and save the screen shot either in *.jpg or *.bmp format.
(13) Event log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(14) Auto Scan	Start/Stop video screen cycle switch
(15) Full screen	Use the entire area of the screen to only display the video. To return, **Right** click the mouse or press **ESC** on the keyboard.
(16) Alarm	Alert and display warning info. Only Administrator-level can reset and turn on, off and trigger the Sensor and Relay by right-clicking the item in the Sensor and Relay list.
(17) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

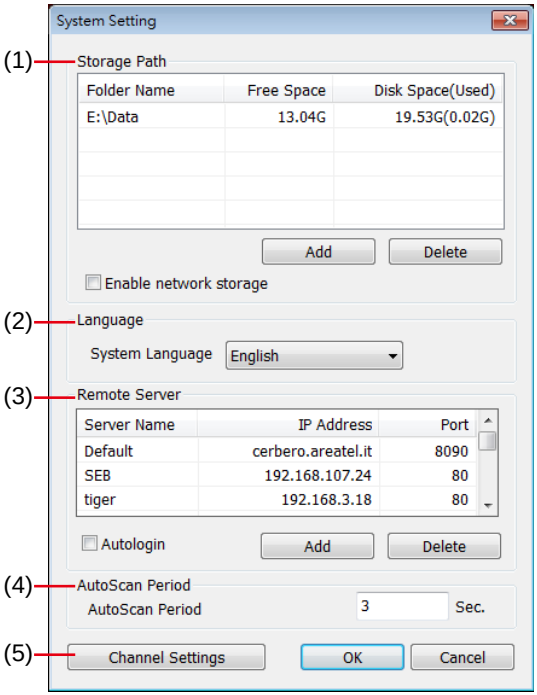
IP camera doesn't support de-interlace.

(18) Turbo	To improve the smoothness of live video. The default is enabled( ), but in following situation: - The channel is IP camera and is in 1 single screen. - The channel is remote NVR and is in 1 single screen. - The channel is analog camera, in 1 single screen, and decoding way is software decode Turbo function setup is in depended for each channel. To turn off turbo function ( ), click turbo button. **[Note]** In multiple split screen mode, the turbo button is gray out.
(19) Watermark	To verify the playback video has not been modified (also see Chapter 2.3.6).
(20) DirectDraw	Enhance the video quality.

Not all graphic cards can support this function.

5.2.1 To Setup Remote Console Setting

Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.

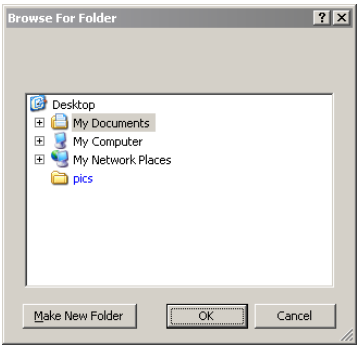


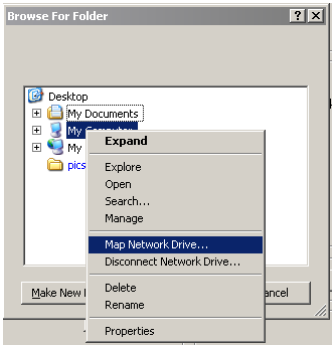
(1) Storage Path

Set the directory on where to save the data. When there is not enough free space to record one hour data, the system automatically replaces the oldest data. In case you have more than one storage path, the system automatically saves the data to the next storage path.

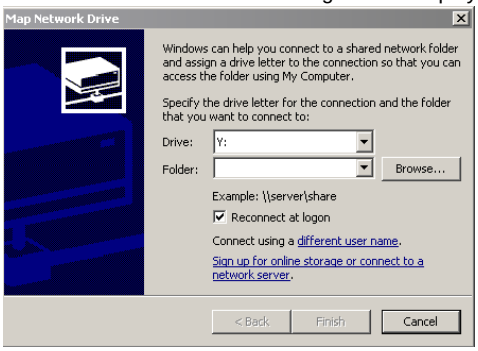
By default the data is stored in C:\RemoteData, to insert another storage path, click **Add**. To remove the selected path, click **Delete**.

Select the **Enable network storage** check box to send the recorded video in network-attached storage. To add network storage, the Internet storage drive/folder must be mapped as Network Driver in NVR server. Enable network storage first, and then, click Add. In **Browse For Folder** window, select drive C and right click mouse button, select **Map Network Drive** option.





In the **Map Network Drive** window, select the **Drive** and fill in the network drive direction in **Folder** column if you know. Or click **Browse** to find the folder direction. Click **Finish** to complete the network drive mapping. After the network drive has been added, user needs to create a folder for network storage. In **Browse For Folder** window, select the network drive and right click mouse button to add a new folder. And then, click **OK**. User should see a new storage folder display in Storage path list.



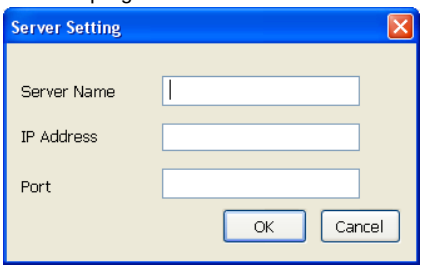
(2) Language

Customize the system to display the tool tips and dialogs based on the selected language. By default the language is in English.

(3) Remote Server

Click **Add** to add NVR server besides the default NVR server. User can easily switch to another NVR server connection by click the NVR server list in table.

- ✓ **Autologin:** The remote console will login to the last connected NVR server automatically when next time execute remote console program.

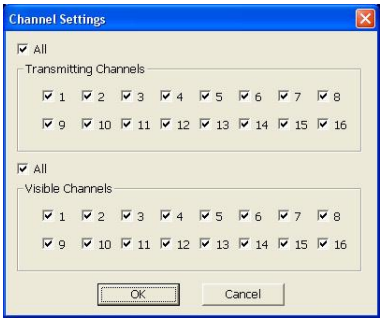


(4) Autoscan Period

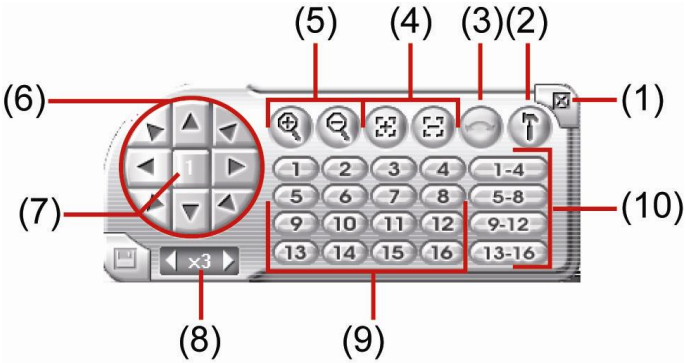
Set the time gap period for channel display auto switch cycle.

(5) Channel Settings

The numbers from 01 to 16 represent the camera ID. In Transmitting Channels section, enable the camera number to receive the camera signal from the server. In Visible Channels section, enable the camera number to view the camera signal on Remote Console screen. To select all the cameras, enable the **ALL** check box.



5.3 Familiarizing the Buttons in PTZ Camera Controller



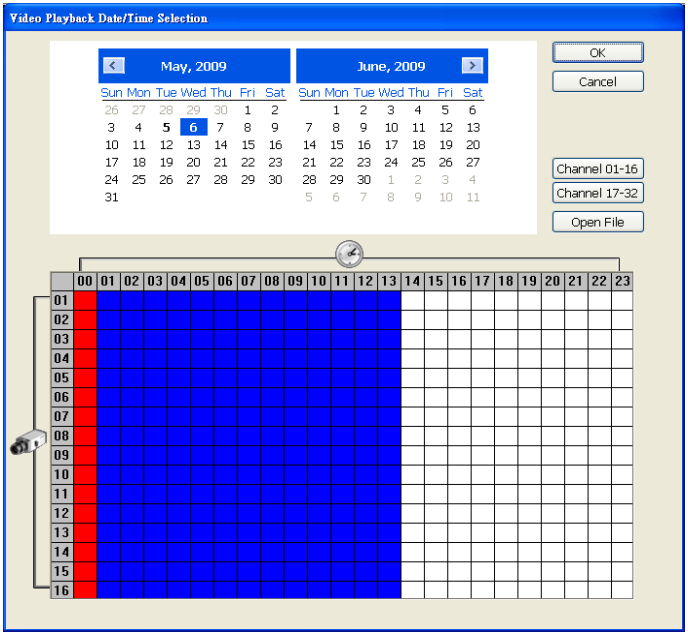
Name	Function
(1) Close	Exit PTZ camera controller.
(2) Setup	Configure PTZ cameras.(also see Chapter 4.13)
(3) AutoPan	Operate the PTZ cameras automatically based on the selected camera group preset position number.
(4) Focus +/-	Adjust the focus manually to produce clear image.
(5) Zoom +/-	Zoom in and out the image.
(6) Direction buttons	Adjust and position the focal point of the PTZ camera.
(7) Camera ID pane	Display the PTZ camera number that is being operated.
(8) Camera lens speed controller	Adjust the moving speed of the PTZ camera lens.
(9) Camera preset position number	Move the PTZ camera to the preset point.
(10) Group AutoPan	Select to automatically operate PTZ camera in group.

5.4 Using the Remote Playback

To use this feature, first you need to select the source of the file. In the **Select Playback Mode** dialog box, choose **Local Playback** to open the file that is recorded in the Remote Console, and **Remote Playback** to open the file that is recorded in the NVR server. When you choose Remote Playback, select **RealTime Playback** if your internet bandwidth is fast and big enough, otherwise choose **Download and Playback**.

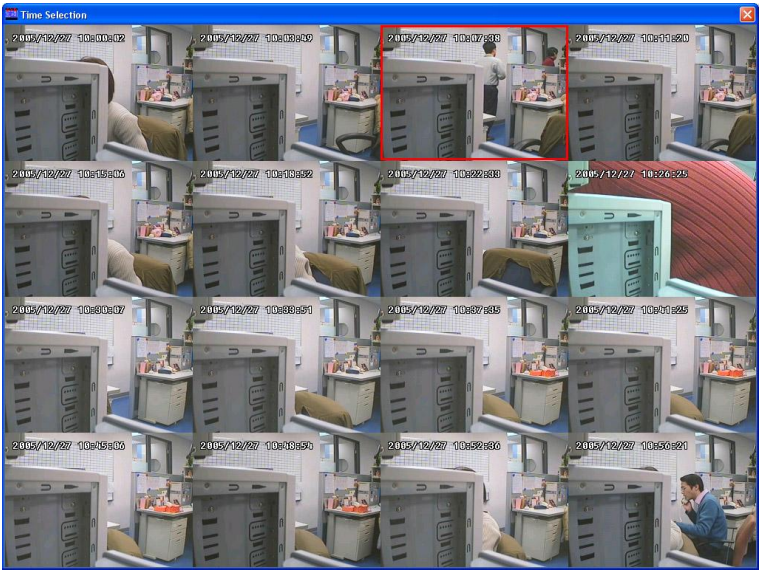
Click **OK** to proceed and **Cancel** to void this operation.

In the Video Playback Date/Time Selection, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera number. To switch to channel group click **Channel 01-16** and **Channel 17-32** button.



To Make a Selection:

1. Select the date in the calendar. Use ◄ and ► buttons to shift the calendar to the left or right.
2. In the table below, click on the blue block to select and open the recorded file. The blue block turns red when it is selected. The block that appears in white doesn't have data. You can only select one block when you choose Download and Playback.
3. Click **OK** to proceed and **Cancel** to void this operation.
4. If you select Download Playback and after making the selection, the system divides the selected hour into 16 video thumbnails. In the Time Selection screen, click on the video thumbnail you want to download and open (see also Chapter 5.4.3).



5.4.1 Familiarizing the Local Playback Buttons

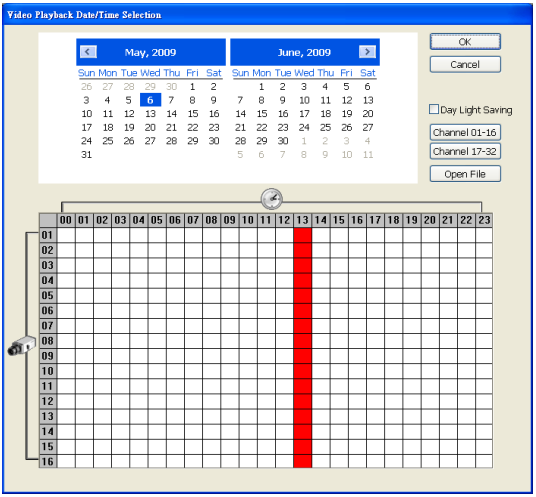
Name	Function
(1) Split Screen Mode	Select from 6 different split screen types to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.

- If there are only 4 cameras, you won't be able to switch to 9, 16, and 13 split screen mode.
- To zoom in an area on the screen, **Right** click and **Drag** a square on the area you want to enlarge.

(2) Exit	Close the application.
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track. When in single screen playback mode, the colors in progress bar have different means. ■ Green color: a motion was detected and recorded ■ Blue color: is a general (always) recording file and no any event or motion happen during recording ■ Red color: the sensor was triggered while recording ■ Black color: no record file at the time period ■ Yellow color: the video loss happen while recording

Name	Function
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.

The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.

(5) Playback Control Buttons	**Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, or 1/8x. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, or 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.
(6) Archive	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. – Also, user can open the recorded file from certain location by click **OPEN FILE** button – Click **Channel 01~ 16** and **Channel 17 ~ 32** button to switch to different channel group of playback calendar. – Mark **Day Light Saving**, the playback calendar will show the available playback records during day light saving period. 

The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.

(7) Preview	Switch to Preview/Advanced mode.

Name	Function
(8) Playback	Switch to Playback mode. This allows you to view the recorded video file.
(9) Status bar	Display the recorded date, time and play speed.
(10) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(11) Export	Export includes Snapshot, Print, and Output Video Clip function. ■ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. ■ **Print:** Print the screen shot. ■ **Output Video Clip:** Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 2.3.1).
(12) Segment	Keep a portion of the recorded video (see also Chapter 2.3.1).
(13) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or **ESC** on the keyboard or click the arrow icon. When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.

When there are dual monitors with 32 channels, the full screen mode will split into 16 channels on each monitor.

(14) Event log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(15) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also Chapter 2.3.3)

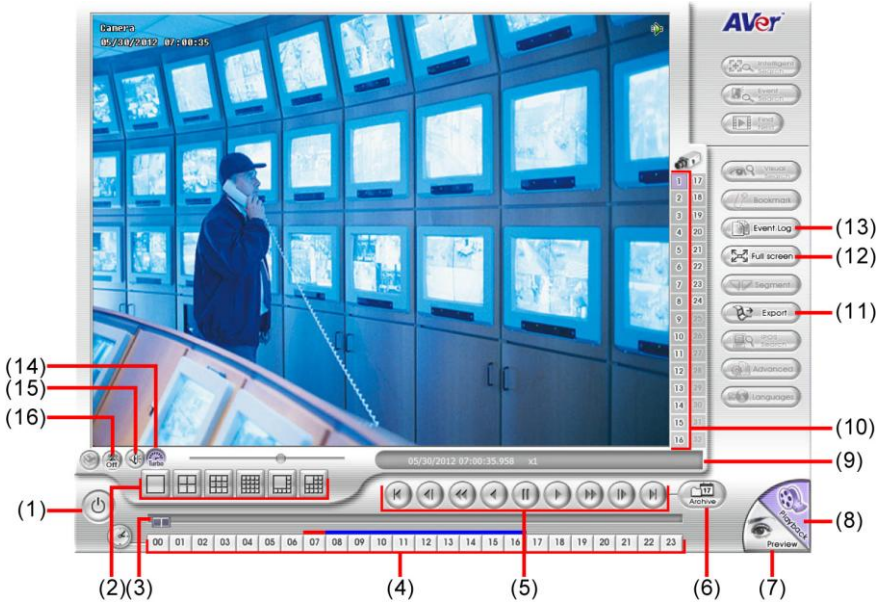
The Visual and Intelligent search only available when the remote site is recording and playback from remote local hard disk.

(16) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(17) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 2.3.5).

Name	Function
(18) Turbo	To improve the smoothness of live video. The default is enabled( ), but in following situation: - The channel is IP camera and is in 1 single screen. - The channel is remote DVR and is in 1 single screen. - The channel is analog camera, in 1 single screen, and decoding way is software decode Turbo function setup is in depended for each channel. To turn off turbo function ( ), click turbo button. **[Note]** In multiple split screen mode, the turbo button is gray out.
(19) Audio	Enable/disable audio play. To adjust audio volume, drag and move the audio volume bar beside the audio button.
(20) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

IP camera doesn't support de-interlace.

5.4.2 Familiarizing the RealTime Playback Buttons



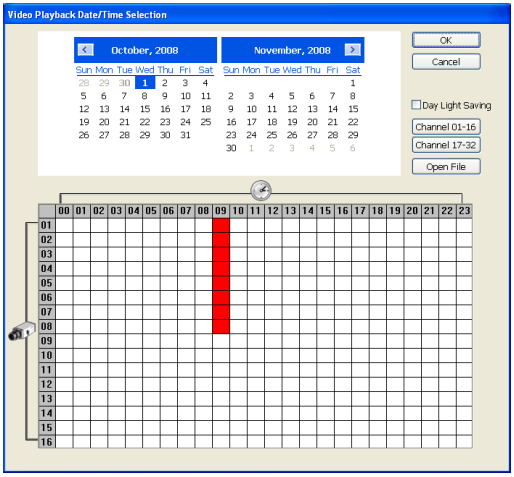
Name	Function
(1) Exit	Close the application.
(2) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera.

- If there are only 4 cameras, you won't be able to switch to 9, 16, and 13 split screen mode.
- To zoom in an area on the screen, **Right** click and **Drag** a square on the area you want to enlarge.

(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.

The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.

(5) Playback Control Buttons	**Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, or 1/8x. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file.

Name	Function
(5) Playback Control Buttons	**Faster:** Play the recorded video file at the speed of 2x, 4x, or 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.
(6) Archive	− Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. − Also, user can open the recorded file from certain location by click **OPEN FILE** button − Click **Channel 01~ 16** and **Channel 17 ~ 32** button to switch to different channel group of playback calendar. − Mark **Day Light Saving**, the playback calendar will show the available playback records during day light saving period. 

The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.

(7) Preview	Switch to Preview/Advanced mode.
(8) Playback	Switch to Playback mode. This allows you to view the recorded video file.
(9) Status bar	Display the recorded date, time and play speed.
(10) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(11) Export	Export includes Snapshot, Print, Output Video Clip, and Backup function. ■ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. ■ **Print:** Print the screen shot. ■ **Output Video Clip:** Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 2.3.1).

Name	Function
(12) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or **ESC** on the keyboard. When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.
(13) Event log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(14) Turbo	To improve the smoothness of live video. The default is enabled( ), but in following situation: - The channel is IP camera and is in 1 single screen. - The channel is remote DVR and is in 1 single screen. - The channel is analog camera, in 1 single screen, and decoding way is software decode Turbo function setup is in depended for each channel. To turn off turbo function ( ), click turbo button. **[Note]** In multiple split screen mode, the turbo button is gray out.
(15) Audio	Enable/disable audio play. To adjust audio volume, drag and move the audio volume bar beside the audio button.
(16) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

IP camera doesn't support de-interlace.

5.4.3 Familiarizing the Download and Playback Buttons

Name	Function
(1) Exit	To exit application
(2) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(3) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.

The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.

(4) Playback Control Buttons	**Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, or 1/8x. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, or 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.
(5) Status bar	Display the recorded date, time and play speed.
(6) Language	To switch the application tips' display language

Name	Function
(7) Export	Export includes Snapshot, Print, and Output Video Clip function. ■ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. ■ **Print:** Print the screen shot. ■ **Output Video Clip:** Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 2.3.1).
(8) Segment	Keep a portion of the recorded video (see also Chapter 2.3.1).
(9) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or ESC on the keyboard. When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.
(10) Event log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(11) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also Chapter 2.3.3)
(12) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(13) Event Search	Search from the recorded activities that take place in the system (i.e., Sensor, Motion, Video Loss, POS). (See also Chapter 2.3.4)
(14) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 2.3.5).
(15) Audio	Enable/disable audio play. To adjust audio volume, drag and move the audio volume bar beside the audio button.

5.5 Using HandyViewer to Access NVR server

Users can use a mobile phone to access the NVR through Internet. Make sure your mobile phone support IE browser and is connected to the internet. To access the NV NVR server, open IE browser and enter **http://DVR IP/mobile**. You can see the latest screen shot. Click **<< >>** to change the channel or camera and **Refresh** to reload new screen shot.

5.6 Using PDAViewer to Access NVR Server

Users can also use a PDA to access the NVR through Internet. Make sure your PDA support IE browser and is connected to the internet. To use this feature, you need to install the PDA Viewer software by downloading it from the internet. Please check if your PDA meets the 2 requirements below.

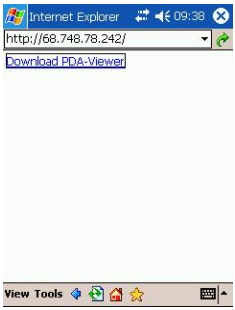
OS: Microsoft Pocket PC 4.20.0, Windows Mobile6 Professional CE OS 5.2.1437, MS Windows CE 4.0, PocketPC 2002/2003, Mobile 5 PDA version

CPU: ARM architecture

5.6.1 To install PDAViewer from the Internet

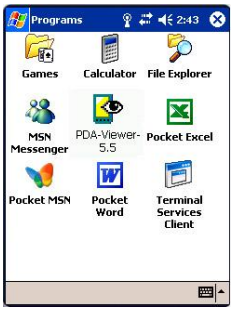
Make sure you are connected to the internet.

1. Open the web browser and enter the server IP. Then click the hyperlink of **Download PDA-Viewer**.



2. When the Download dialog box appears, enable **Open file after download** and click **Yes**.

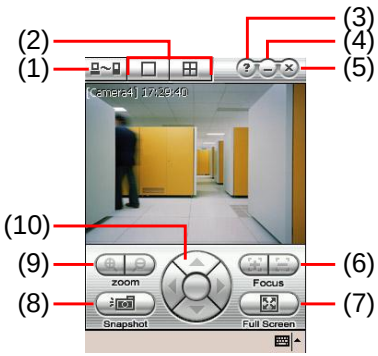
After the installation, the PDAViewer icon will appear in the Programs list.

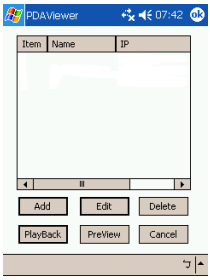
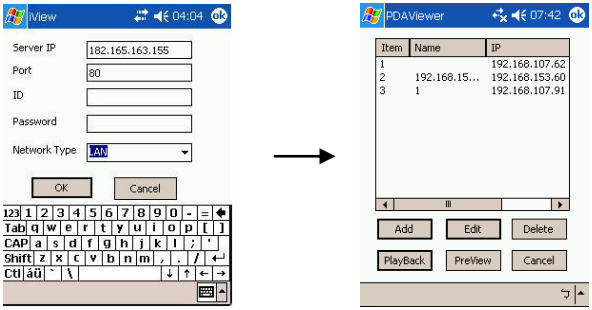


5.6.2 To Use the PDAViewer

1. Run the **PDAViewer** in the Programs.
2. Familiarizing the PDAViewer buttons.

PDAViewer only support audio for analog camera.



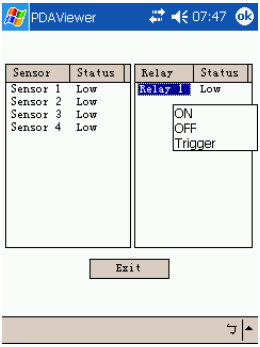
Name	Function
(1) Connect	Hook up to the NVR server. Make sure you are connected to internet. When the iView screen appears, click Add to add NVR server.  Enter the server IP, port, user ID, password and select the connection type. Then, click **OK**.  User can playback the recorded video from remote NVR server in PDAViewer.(see Chapter 5.6.3)

Name	Function
(2) Split Screen Mode	Select between 2 screen display types. It also allows you to switch and view different camera number or channels.
(3) About	Display the PDAViewer software version.
(4) Minimize	Reduce the size to taskbar.
(5) Exit	Close the PDAViewer.
(6) Focus	Adjust the focus of PTZ camera to produce clear image.
(7) Full Screen	Use the entire screen to only display the video.
(8) Snapshot	Capture and save the screen shot in *.bmp format.
(9) Zoom	Zoom in and out the PTZ camera image.
(10) Direction buttons	Adjust and position the focal point of the PTZ camera.

3. To change the video quality, enable/disable audio, and select to display different camera, tap on the video screen longer the pop up menu will appear.

4. User also can view and change status of I/O devices
5. On the preview screen, tap on video screen longer the pop up menu will appear
6. Select the **Remote IO**

7. The sensor and relay devices will list as below:

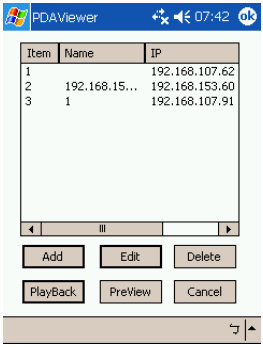


8. User can change the relay status. Select the relay and tap on video screen longer the pop up menu will appear, and then, select the status (ON, OFF, Tigger)

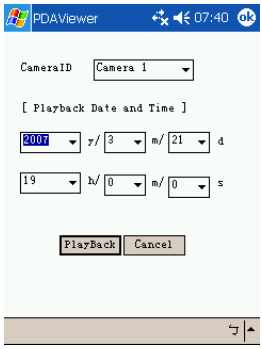
5.6.3 To Playback in PDAViewer

1. Run the **PDAViewer** in the Programs.
2. Hook up to the NVR server.
3. Click **Connect** icon and select the NVR server

4. Click **Playback** to enter playback option screen



5. Select the **camera**, **data**, and **time**
6. Click **Playback** to start playing the recorded video



5.7 Using JavaViewer to Access NVR Server

Using the mobile phone within Symbian Smart Phone OS to access the NVR through Internet. Make sure your mobile phone supports Symbian Smart Phone OS and can be connected to the internet. To use this feature, you need to install the Java Viewer program that it can be downloading it from the NVR server through the internet.

5.7.1 To install JavaViewer from the NVR Server

1. Open the web browser and enter the NVR server IP (http://NVR server IP: port/Java-Viewer.html). Then click **Connect**.
2. When the Download screen appears, select **Java-Viewer.jad** and download it to your mobile phone.
3. After the installation, the JavaViewer will be in your mobile phone system. To find the JavaViewer program where is located, please refer to your mobile phone user's manual.

5.7.2 To Use the JavaViewer

1. Run the JavaViewer program.

2. Enter the NVR IP address, port number, user ID, and password. Please refer to your NVR server setting for that information.

3. And then, select the Connect to connect to NVR server.

4. Click **Yes** to accept the data from NVR server.

5. When connection is success, you will see the camera video on the screen.

6. To switch to different camera view, select menu and select the channel.

7. The JavaViewer support PTZ control function, you can refer to **Help** file for detail function control key. Select **menu** and go the way down to select the **Help** file.

Chapter 6 Using the Remote Control Server

The bundled Remote Control Server enables the PC with Central Management System program (CM3000) installed in it remotely access the NVR server. You may need to manually run this program for CMS access the NVR server. To run, click **Start** > **Programs** > **DVR** > **Remote Control Server**.

The remote control server icon appears on the taskbar when the remote control server is enabled. To change the port setting or stop server, right-click icon and then make a selection.

User can also setup Remote Control Server in NVR **Network** setting, please see Chapter 3.4 #(5).

Appendix A Registering Domain Names

DDNS (Dynamic Domain Name Service) is a data query service mainly used on the Internet for translating domain names into Internet addresses. It allows remote clients to intelligently search dynamic servers without any previous enquiring for servers' Internet addresses.

In order to take advantage of this intelligent service, first register your domain name. User has two choice of the DDNS server site can register the domain name. Choice the one you like and register the domain name.

I. Register the Domain Name on http://ddns.avers.com.tw

1. **User Login**
   Browse the website ddns.avers.com.tw with Microsoft IE or Netscape Navigator to access the following dialog.

- First input CD-Key number and select the product name.

> One of CD-Key allows user to register two domain names. One of domain name can be used by Dispatch serve.

- Then click **OK** to login or **Reset** to clear the previous input.

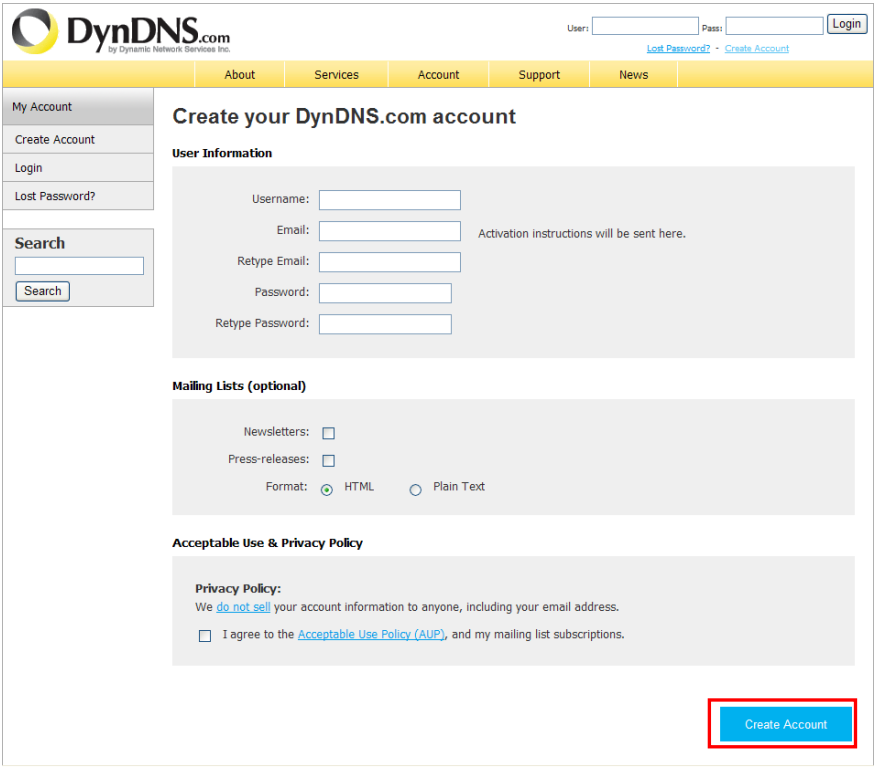
2. **User Information**
   Please provide the following user information, **Host Name** (user can choose any name he/she likes except the one in conflict with other users), **Password**, **E-mail**, **Company**, and **Country**. And then, click **OK** to complete the domain name registration.

> - Note that Host Name and Domain Name (avers.com) are the replacement for Internet address while a remote client tends to search a dynamic server.
> - Host Name column supports alphabet letters and number only. The maximum character is 15.
> - The password maximum character is 12.

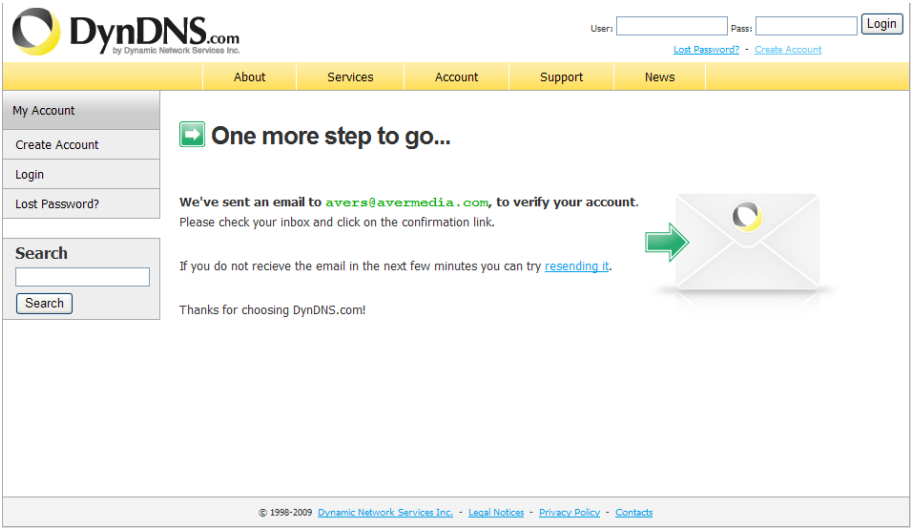
II. Register the Domain Name on http://www.dyndns.com

1. Open the browser on your PC and enter the URL http://www.dyndns.com
2. Select the **Create Account** from the main page.

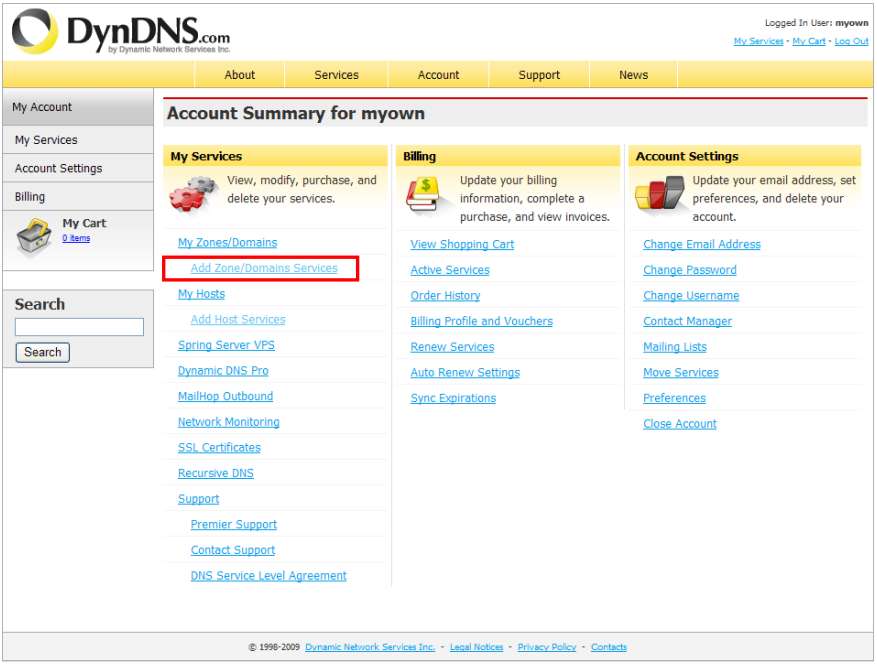
3. Enter the **Username**, **Email**, **Retype Email**, **Password**, **Retype Password**, and read the policy agreement.
4. After entered all necessary information, click **Create Account**.



5. User need to do the email verify in order to complete the account apply. Go to your mail account that user has used to register the account to find the confirm mail.



6. After account has been confirmed, user can login to your account.



7. Select **Add Zone/Domians Service** to register the domain name.

Appendix B Network Service Port

The following table shows the ports that NVR server uses for certain network service.

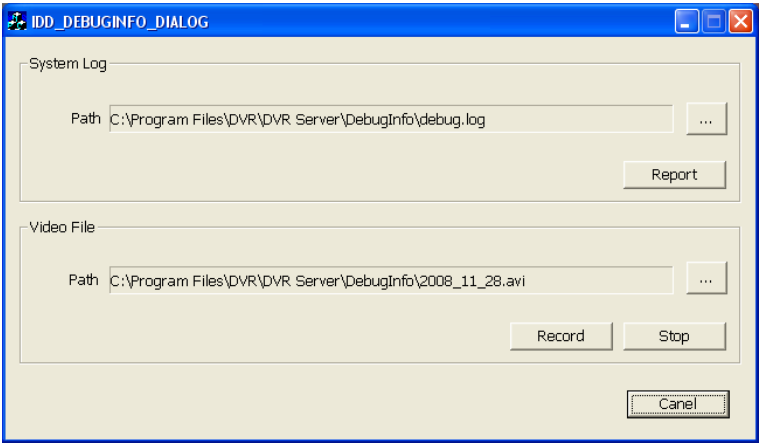
	Port #	Variable
Remote Console (CM 3000)	5550	Y
PCViewer	80	Y
2-way audio	9999	N
Remote Control (CM3000/RC1000)	5555	Y
NVR POS	5150	Y

Appendix C Using Debug Tool

Debug Tool helps user to save a system log report or record all operate processing in order to debug when DVR system has abnormal status occurred. Debug Tool will be install when DVR system is installed. Please go to **start** > **program** > **DVR** > **Debug Tool**.

To save a debug log, click ... to change the save path and click **Report** button to export a debug log file in ***.txt** format.

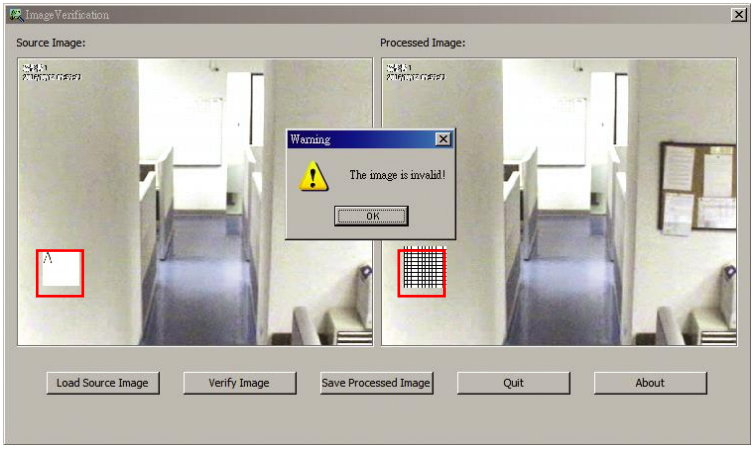
Debug Tool can record all operate processing by clicking **Record**. To change the save path, click ... . To stop the recording, click **Stop**. The Debug tool will record a video file in ***.avi** format.



Appendix D Image Verification

ImageVerification is a watermark-checking program to identify the authenticity of a saved image (e.g. by snapshot). This program can only verify uncompressed bmp image files.

1. Click **Start**>**Programs**>**DVR**>**ImageVerification**.
2. In the ImageVerification screen, click **Load Source Image** and locate the image source.
3. Click **Verify Image** to begin the process.
4. Check the result in the Processed Image screen. If the picture is unmodified, the image in the Source Image and Processed Image screen would be exactly the same. If the picture is being modified, a warning dialog box would prompt you and the modified area is highlighted.



LIMITED WARRANTY

AVer Information Inc. warrants that this product to be free of defects resulting from faulty manufacturing or components under the following terms:

WARRANTY LENGTH

Labor is warranted for 5 years.

Parts is warranted for 3 years.

WHO IS PROTECTED

This warranty is enforceable only by the first consumer purchaser.

WHAT IS AND IS NOT COVERED

Except as specified below, this warranty covers all defects resulting from faulty manufacturing of this product. The following are not covered by the warranty.

1. Any product on which the serial number has been defaced, modified, or removed.
2. Damage, deterioration, or malfunction resulting from:
   a. Accident, abuse, misuse, neglect, fire, water, lightning, or other acts of nature, commercial or industrial use, unauthorized product modification, or failure to follow instructions included with the product.
   b. Misapplication of service by someone other than the manufacturer's representative.
   c. Any shipment damages. (Claims must be made with carriers.)
   d. Any other cause that does not relate to a product defect.
3. Cartons, cases, batteries, cabinets, tapes, or accessories used with the product.
4. AVer Information Inc. does not warrant that this product will meet your requirements; it is your responsibility to determine the suitability of this product for your purpose.

WHAT WE WILL AND WILL NOT PAY FOR

We will pay labor and material expenses for covered items. However, we will not pay for the following:

1. Removal or installation charges.
2. Shipping charges.
3. Any incidental charges.

EXCLUSION OF DAMAGES

THE MANUFACTURER'S SOLE OBLIGATION AND LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF A DEFECTIVE PRODUCT AT OUR OPTION. THE MANUFACTURER SHALL NOT, IN ANY EVENT, BE LIABLE TO THE PURCHASER OR ANY THIRD PARTY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE (INCLUDING, BUT NOT LIMITED TO, DAMAGES RESULTING FROM INTERRUPTION OF SERVICE AND LOSS OF BUSINESS) OR LIABILITY LIMITATIONS OF IMPLIED WARRANTIES.

There are no other oral or written warranties, expressed or implied, including but not limited to those of merchantability or fitness for a particular purpose. Any implied warranties are limited in duration to 15 months from the date of purchase.

STATE LAW AND YOUR WARRANTY

This warranty gives you specific legal rights, and you may also have other rights granted under state law. These rights vary from state to state.

CONTACT INFORMATION

Taiwan & International

No. 157, DA-An Rd., Tucheng Dist., New Taipei City, Taiwan

TEL: 886-2-2269-8535

FAX: 886-2-2269-8537

Web Site: http://surveillance.aver.com/